PERSONAL MOVIES

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Personal Movies

PERSONAL MOVIES

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A Page with the Editor

The things that warms ye editor's heart more than any other are the many letters from friendly, interesting and enthusiastic readers that come in day after day.

PERSONAL MOVIES magazine has made a host of friends within its existence and is making many more day by day. They are all good, influential friends who have the money and inclination to buy personal movie and photographihc equipment to their liking. They like PERSONAL MOVIES and take the time and trouble to tell us so. They tell us what they like and what they dislike and we are using their composite likes and dislikes as a pattern to build a publication which will, without question become a force and factor in this field second to none. You will see us continue to improve month by month as we have in the past and it will be a popular improvement for we are ever alert to popularize the content of this publication to the desires and tastes of its ever growing reader audience.

I would like to publish a number of these letters because they are not only a testimonial for PERSONAL MOVIES magazine, but more than that, a testimony of the intense interest which prevails in this popular branch of photography.

Among the many letters received this month quite a few express approval of the September cover design, which was our first attempt with a process cover. Mr. Freeman Taylor, Llanerch, Pennsylvania, sends in the following interesting comment:

"Your cover design this month was beautiful indeed and the entire magazine was most interesting.

"My interest in the cover was due to the fact that I had the good fortnue to visit Alaska and the Yukon, going via the 'Inside Passage.' This picture must have been made near the entrance to Ocean Falls.

"To reach this little town nestling in the mountains, the ship leaves the main Passage and winds through a circuitous channel, amid towering peaks of glamourous beauty.

The two photographs above were taken by Mr. Freeman P. Taylor and are of particular interest for two reasons. First, that they were taken almost at the exact spot where the September cover picture was made. Second, that they were made after sun down. The light in this section of Alaska being favorable to this extent even late in the evening during the season which these were made.

"It was evening—by the watch—when the prow of the ship swung toward Ocean Falls but the long days made it possible to snap pictures and I am mailing two that may prove of interest. The first shows the channel and we passengers were guessing how anyone would, or could know when and where to turn in order to reach our objective. The second print gives the first glimpse of the little town after the ship's navigator had proven that he 'knew his channels'."

The two pictures which Mr. Taylor mentions above are reproduced herewith. By referring to the September cover it is interesting to note that this is indeed a very true likeness of the locality in which Mr. Simpson's color sketch was made.

We will have more of these covers in colors as our readers have indicated their approval without a question of doubt. But just by the way of variety we also expect to have a generous amount of photographs as well.

For next month—November—we will have an attractive Thanksgiving cover made with the camera. Under this cover will be a wealth of good material that you will not want to miss. Lack of space does not permit me to go further into detail here—but by all means do not miss it!

We have had a number of requests for information concerning title making. Mr. Wolfman, in his department the "Technical Corner," starts a series on this interesting subject this month. Next month will take up further successful methods along this line. If you have back number of PERSONAL MOVIES magazine you will also find articles which will be of help to you in the November, 1932 and January, 1933 issues. "Titular Topics," by George W. Hesse appeared in the November Number and "Tips on Title Making" by Karl A. Barleben, Jr., appeared in the Janury Number.

The Cine Analyst

by George W. Hesse

"MOONLIGHT & PRETZELS"

Directed by Karl Freund and Photographed by William Miller

"Moonlight and Pretzels" suffers seriously from the fact that it is a stereotyped conventional story of back stage life during the production of a lavish musical comedy on Broadway, the only points of newness about it being the songs, lyrics and dance routines. In plot and development it is like many another screen musical which has come and gone, leaving no more than a shadow of a ripple on the surface of the entertainment world where things move and change and progress with a rapidity undreamed of in other lines of endeavor.

Hampered by a story not strikingly original and by, in the opinion of this department, several instances of inept casting, the director has, nevertheless, turned out a picture worthwhile for at least an evening's entertainment if not the "twenty entertainments rolled into one" which one movie critic effusively penned on the opening night. If you have seen any one of the so-called back-stage" screen musicals, you will have seen "Moonlight and Pretzels," so far as the story is concerned; and as for the tunes, you've probably heard them countless times over the radio. It is interesting chiefly for being the first picture of major importance to be produced in an Eastern studio for a long, long time. If nothing else, it proves that pictures can be made in the East which are certainly no better and no worse than those made in Hollywood.

As in all musicals of this type, "Moonlight and Pretzels" ends up as a lavish, brilliant musical spectacle put on by the bright young author. It is so lavish and brilliant in fact, that it could never have been presented on the stage of a theatre, where it is supposedly presented. Therein lies one of the major faults of this type of screen musical. Most pictures have the saving grace of at least remaining in character, but screen musicals which devote themselves to the trials and tribulations of the birth of a Broadway musical show, blithely ignore this basic fundamental and ultimately destroy every semblance of realism carefully built up in the opening and introductory scenes of the picture as a whole. Thus we have, on the opening night when the author or director nervously stands in the wings sending in rows of scantily clad chorus girls and complimenting principals as they come off stage from their big numbers, such incongruities as scenes shot from directly above the center of the stage showing the prancing chorines going through beautiful and intricate evolutions. Yet these scenes are supposedly those which the audience out front sees. They are out of character, no matter how effectively they may be of themselves. Of course, it is necessary to get variety into the picturization of chorus evolutions, else they would prove hopelessly boring. But the variety should not be introduced at the expense of naturalness or realism. The scene mentioned above, that in which the camera points directly down on the heads of the chorous, could have been kept in character by simple expedient of making it frankly a bit of back-stage action, as if it were that portion of the show seen by a stage hand or electrician from his post high up amongst the scenery and light grills and scaffolding.

The "Dusty Shoes" number is particularly obnoxious in this respect. It is put on in a lavish, wierdly changing manner such as could never be duplicated on the stage of a theatre. Even the gigantic stage of the Radio City Music Hall, famed for its gadgets and gyrations, what with sections which, at the pressure of a control button, rise straight us, move forward, backwards, sideways and revolve, could not put on "Dusty Shoes" in the same manner as it was put on in "Moonlight and Pretzels."

An "off-stage" shot showing the director and cameraman lining up for a semi-close-up. Note the new type of camera blimp and perambulator which takes the place of the conventional field tripod.

At one time in the picture, a clever device was used to bring in a dancing sequence in a natural manner. I refer to that sequence in which the author-composer is expounding his ideas on the dances to go with "Ah, But Is It Love?" On the piano stands a miniature stage in which six figures are in dancing attitudes. The camera concentrates on the miniature stage and the figurines apparently come to life and go through the dance routine as conceived by the author. Thus easily, effortlessly and naturally the dance sequence was brought in and was a definite help to the picture rather than an hindrance.

During several sequences, color was

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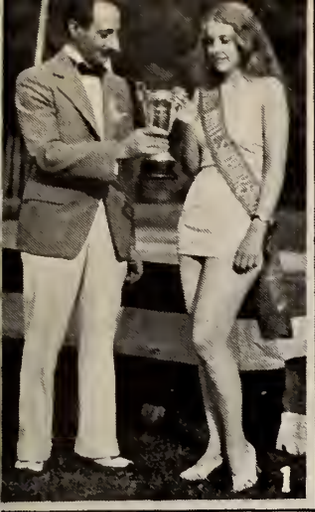
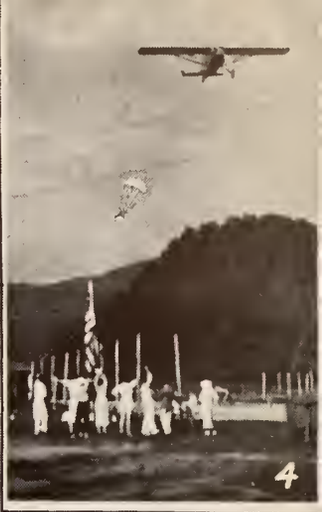




SECOND ANNUAL
PICNIC

Camp Shaw-Mi-Del-Eca
AUGUST 27th. 1933

See Article Below for Captions.

GREENBRIER CLUB'S SECOND ANNUAL PICNIC -- OUTSTANDING SUCCESS

The Greenbrier Amateur Movie Club's second annual picnic was held August 27th. at beautiful Camp Shaw-Mi-Del-Eca on the Greenbrier River, and no event the club has sponsored to date has furnished more wholesome good-fellowship and genuine fun than this sporting event. The camp was loaned to the club for the day through the courtesy of Col. H. B. Moore, of the Greenbrier Military School, Lewisburg, W. Va. The caravan of automobiles assembled at the C. & O. Depot at 2 p. m. and reached camp at approximately 2:45, when the sports events began. Miss Catherine Dineen and Carl Ostlin distinguished themselves as the outstanding athletes of the day, winning the 50 yard dash for women, the 100 yard dash for men and the canoe race for men and women. Miss Dineen also won the ladies' sack race, while Dr. Sydney Goldberg won a similar race for men. There were prizes for each event and a "lucky number" prize consisting of ten tickets to the Plaza Theatre was won by Mrs. Cobb, of Alleghany. The coveted title of "Miss White Sulphur Springs, 1933" and the Movie Club's silver cup was won by Miss Elsie Nutty, who also captured first place in last year's beauty contest. Martha Norelius, former Olympic swimming champion, who in private life is Mrs. Joe Whight, of Toronto, Canada, gave an exhibition of her famous swimming and diving acts. The most ludicrous event of the day was the baseball game, umpired by Bob Waller and played three innnings, women vs. men. In the women's line-up were: Misses Genevieve Wyatt, Eleanor Justice, Virgina Collins, Charlotte Erwin, Betty Dixon, Millie Zihlmann, Margaret Crickenberger, Mrs. John Frechem, Jr., and Mrs. Freddie Edmonds. The men's team was made up as follows: Messrs. Hall, Goodwillie, Edmonds, Bill Barron, Fred Barron, Dickman, Chassy, Carver, and Goldberg. The score is still a subject of discussion, although the weaker sex were given the benefit of the doubht.

Supper, a wiener roast around a huge camp fire and a concert by the Meyer Davis Orchestra completed a perfect day.

Captions for the picture above are as follows: (1) Prince Raoul di Cattolica presenting the trophy to Miss Elsie Nutty, winner of the beauty contest. (2) Part of the crowd watching the judging of the beauty contest. (3) Sidney Goldberg hopping in to win the men's sack race. (4) Capt. L. E. Marden, of the Greenbrier Airport, dropping a miniature parachute containing messages of congratulation to "*Miss White Sulphur Springs.*" (5) The newlyweds, Mr. and Mrs. Jas. Goodwillie II, of Chicago and points East. (6) Carl Ostlin winning the 100 yard dash, closely followed by Lon Chassy, of the Meyer Davis orchestra. (7) The canoe race in progress. (8) Other contestants in the beauty contest; left to right: Charlotte Erwin, winner of second place; Mrs. J. Frechem, Jr.; Catherine Dineen; Virginia Collins; Eleanor Justice and Genevieve Wyatt. (9) A group of distinguished guests at the picnic; left to right: Prince Raoul di Cattolica; Mrs. R. H. Patterson; Mr. W. C. Grauer; Mrs. Charles McCarthy, of Boston; Mr. Penrhyn Stanlaws;

(*Continued on page 242*)

(*Continued from page 240*)
introduced, probably by means of a form of stencil process. The color did not enhance the scene to any great extent and its omission would scarcely make the scene any the less effective. Probably the color will be omitted from the prints made for general release. All in all, "Moonlight and Pretzels" is worth seeing, especially for the excellent lightings used throughout. To the alert student it will reveal the harmful effects of going out of character and will serve as an object lesson.

"ONE MAN'S JOURNEY"

"One Man's Journey," a program picture of rare and sensitive charm, offers much of interest to students of cinematic technique. The mood of the picture is matched well nigh flawlessly by the lightings and camerawork. In addition, there are several sequences, indicating lengthy lapses of time, which are tremendously effective in their pictorial simplicity. Too, in one sequence, the hard, uncertain life of a country doctor is graphically portrayed with an absolute economy of effort.

The one sequence was introduced by the close-up of a turning carriage wheel, indicative of the fact that the doctor was making his calls of mercy. This lap dissolved into a close-up of the turning pages of a book. Occasionally the turning pages paused so that an entry or two could be read in the diary. As one realized the import of the entries, it became evident that they covered a long period of time. Thus the picture moved forward in action and the audience got an insight into the life and habits of the doctor by means of nothing more animate than ink and paper. A bit later in the picture a similar device was employed save in this case the actual year dates could be seen growing larger and larger and disappearing in rapid succession; somewhat similar to the effect secured in the series of short subjects known as the "Screen Souvenirs."

The sequence devoted to the portrayal of the uncertain life of a country doctor, did so by showing short scenes of the doctor traveling about the countryside in carriages, and sleighs in all kinds of weather in both day and night. These scenes were intercut with close-ups of ringing telephone bells indicative of the urgency of the missions calling the doctor forth. At no time was it necessary for this particular sequence to show the doctor in attendance upon a sick person, rather such bits of action would have detracted from the cumulative effectiveness of the sequence as a whole.

(*Continue from page 241*)
Miss Grace Kelly, art director of the Cleveland Plain Dealer; Mr. R. H. Patterson, club president; and Mrs. W. C. Grauer. (10) Mrs. Martha Norelius Wright, famous Olympic swimmer, who gave an exhibition of swimming and diving. (11) Catherine Dineen, center, the "one-woman track team" winning the 50 yard dash from Virginia Collins, let, and Genevieve Wyatt, right. Catherine also won the sack race and piloted the winning canoe over the finish line.—*G. A. M. C. Photos.*

The Worsching Counter-Light Cap

The Worsching Counter-Light cap is a cleverly designed sunshade and filter holder all combined into one. This useful device is being introduced to the American market by Hugo Meyer & Company, 245 West 55th Street, New York City. With the invention of the Worsching Counter-Light cap, photography against the sun, even at an acute angle, is mere child's play. The cap which can be fixed on any camera, even the smallest hand camera, by a single manipulation—the cap is simply pushed over the front of the lens like a color screen.

It consists of 3 parts, a cup-shaped tube, interchangeable rectangular stops and a sun cover or shade which can be moved in all directions. The cup-shaped tube serves to keep all reflected and false side light from the lens, at the same time it carries the hinged sun cover. The purpose served by the rectangular stops will be clear from the following considerations: Every photographic lens projects a circular picture of which the total area greatly exceeds the actual surface of the plate or film in the camera. The result is that a vast amount of false side light passes through the lens into the interior of the camera, and is of no use at all in producing the picture, on the contrary it is reflected by the bellows or walls of the camera on the sensitive plate, there producing fog and consequently flat negatives. It is the claim of the manufacturer that the Worsching Counter-Light Cap entirely eliminates this trouble. Full information may be obtained by writing the above company.

The Technical Corner

by Augustus Wolfman

"TITLES"

The making of titles is a phase of amateur cinematography which enables the filmer to obtain as much joy as is derived in the usual filming of scenes. Titles are a necessary component of amateur movies. They serve to connect and explain scenes. Cleverly worded they can inject humor or other moods into the picture. We will not concern ourselves with the methods of wording titles but rather with the technique of making them.

The amateur can letter his titles upon large cards which are then photographed, care being taken that the card is properly placed, and sharply focused upon. The market, however, offers many simple and handy devices. Title boards can be obtained in which there are grooves into which celluloid letters are slipped. It is a simple matter to change from one title to another Letters with prongs are obtainable. These are simply tacked on to the title board. Still another apparatus employs magnetism to keep the letters adhered to the board.

Block letters can be had with which unique titles can be made. They are obtainable in colors for the production of Kodacolor titles.

More convenient devices are offered in the title stands. These compact accessories provide for a fixed position for the camera, and a frame into which the title cards are placed. Small cards can be employed with the assurance that they are correctly aligned. Such devices are the Bell & Howell Character Title Writer, the Cine-Kodak Titler, the Simplo Title Maker, etc.

The Bell and Howell Character Title Writer is capable of being placed at various angles from a horizontal position to a vertical one. In the accompanying illustration the titler is placed so that the hand writing the title can be photographed. It carries its own lighting equipment consisting of two lamps mounted upon arms which are swiveled and jointed, enabling the lamps to be placed at various positions. The latter are silvered on one side dispensing with the use of reflectors. The equipmnet is also provided with an offset-compensating prism. This device permits the viewfinder of the camera to be used to align the title card properly. It must be remembered that at close distances, such as are encountered here, the viewfinder does not present the actual field covered by the lens, due to the different positions they both occupy upon the camera.

The Cine-Kodak Titler is provided with a special lens mounted in a hinged frame, which when raised in front of the Cine Kodak lens brings the latter into sharp focus upon a title card only eight inches distant. This enables ordinary small letters such as typewriter tpye to make suitable titles.

A portable stand is offered in the Victor Pocket Titler. When folded

The Cine-Kodak Titler

this device easily slips into the pocket. Titles can be made as we go along filming.

Willoughbys' offer the Simplo Title Maker. This titler can be used with the Simplex Pockette Camera and all models of Cine-Kodaks including the "eight." It is equipped with a roller enabling "creeper" titles to be made. This titler can also be fastened to an upright device to photograph coins, jewels, etc.

Now let us consider the making of title cards. The general plan upon which they should be based is light lettering upon a dark background. Due to the characteristics of human vision light lettering upon dark colored backgrounds is more easily viewed than dark letters against a light background.

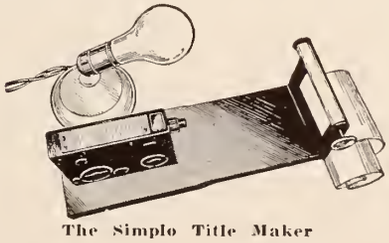
If you are going to employ decorative titles use the same motif in all the titles used for a single motion picture. Harmony must be preserved. The design can be drawn upon celluloid and placed over each card, or it can be made as a cut-out and placed over the card when it is being photographed. If you desire so, elaborate designs may be employed in the main title. The other titles, however, should carry a similar simple design. Ornate decoration detracts from the wording of the titles.

In lettering the title many methods can be resorted to. Some cinematographers prefer to use their own handwriting in making titles. Others who have had some art training and are deft at lettering produce titles which are designed to harmonize with the action of the motion picture. Many amateurs employ small printing presses to produce clean cut lettering. Such presses are obtainable at a relatively low cost.

Amateurs who wish to letter their own titles will find that very helpful textbooks on lettering are available at all book shops. If you intend using a brush do not purchase this tool at a 5 and 10 cent store. Procure a red sable show-card brush at an artists supply store. This type is especially designed to produce clean cut letters.

If you are clumsy at handling the brush a simpler but less efficient tool will be found in the speedball pen. It is provided with a flat point which is supplied in various widths according to the thickness of the letters desired. This pen is obtainable at all large stationery stores.

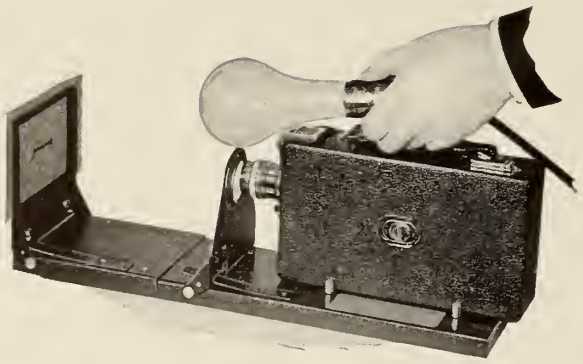
After the card has been made we now proceed to photograph it. With title stands the correct alignment of the card does not present a problem. The attached frame serves as a guide. Similarly focusing is also provided for. When employing other means of making titles precaution must be taken to correctly place the card. Its center



The Simplo Title Maker

must be directly opposite the center of the lens, and the four corners of the card must be at equal distances from the objective. This is necessary to prevent distortion.

Obtain accurate focus. A unique device which can be employed is a fo-



The Cine-Kodak Titler Showing the Correct Method of Using a Single Lamp

cusing prism. It slips into the film channel occupying the same position that the film normaly does. The image produced by the lens is viewed on the ground glass surface of the prism. Owners of cameras possessing direct visual focusing such as the Victor Model 5, and Filmo 70-DA have this problem solved for them.

Cinematographers who possess the Filmo 70-DA camera have an accessory available whereby the title card can be perfectly aligned. This device is known as the Focusing Alignment guage. It is a sliding camera mount which is attached to the camera. Three positions for the latter are provided. In use the title card is mounted vertically in front of the camera. The latter is then moved to the right of the track to place the view-finder in the photographic lens position. The camera is moved about until the card is correctly placed in the view-finder. The turret is now revolved to bring the lens in the focusing position, and the camera is shifted to the extreme left of the guage track. The lens is focused upon the card and returned to the photographic aperture. The camera is now shifted to the photographic position and the title "shot."

Either daylight or artificial light is suitable to illuminate the card. When using artificial light caution must be observed that the card is evenly illuminated. Best results are obtained with two lamps, one placed on either side of the title card. Use the tubular type of bulb, and provide both lamps with reflectors. If your equipment is limited to one lamp place it directly above the camera in the manner illustrated. This method is suitable but will not produce as even an illumination as is obtained with the use of two lighting units.

When employing block letters we depart from this method of illumination. In this case our light source must come from one side so that the block letters will cast shadows and stand out in relief.

The title should be of such length that it would appear on the screen for a sufficient time to be slowly read. The usual rule is to allow from 14 to 16 frames per word.

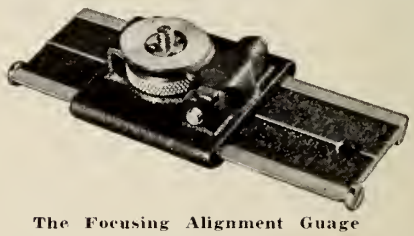
The question of the type of film to be used arises. Since snappy results are desired the best type of emulsion to employ is positive film. This is ordinarily used to produce prints from negative film when the latter has been used instead of the usual reversal type. Two methods can be employed with this film. Direct positive titles can be produced, or the positive type of film can be exposed, developed as a negative, and then prints produced therefrom. Direct positive titles offer a simple method of producing the finished title at home. We will discuss this method later.

The Bell & Howell Character Title Writer

Should the amateur wish to employ the usual reversal film, it would be best to choose normal panchromatic film rather than supersensitive "pan". The former produces more contrasty results. Then again we have some of the orthochromatic reversal emlusions recently introduced which are contrasty films.

Now to return to direct positive titles. In this case we expose the positive film to the title card develop the film as a negative and employ this negative as the finished title. We must therefore employ an opposite procedure in designing our title cards. Instead of light lettering against a dark background we have dark lettering against a light background. After the positive film has been exposed and developed it is actually a negative but the title will appear upon it in the correct fashion.

The entire process can be accomplished at home. Ordinary M-Q tubes or prepared fine-grain developers can be used to make the developing solution. A ruby lamp serves as a source of illumination while developing the film. Eight by ten photographic trays will accommodate a length of film used as a title, or you can borrow some enameled pans from the kitchen. To facilitate matters it would be best to first expose a strip of positive film to



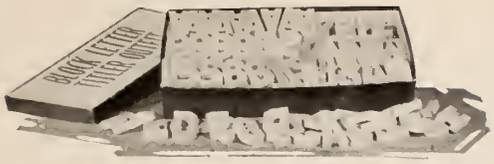
The Focusing Alignment Guage

varying diaphragm openings, develop it, and determine the correct exposure. After each title has been "shot" take the camera to the dark room and cut a notch in the edge of the film. The notches will serve as a guide to the subsequent cutting of the film prior to developing.

Many filmers are also still camera enthusiasts and possess a dark room and equipment. This will simplify matters to a great extent. If you are not in this class the bath room or a roomy closet will serve the purpose. A ruby lamp can be purchased at a small cost, and as I have mentioned before should photographic trays not be available, pans from the kitchen will be found to be appropriate.

After the title has been completed we are now ready to splice it into the rest of the film. Titles made on reversal film are added in the usual fashion —with the emulsion facing the lens of the projector. Direct positive titles are spliced into the main film in the same manner. Titles produced by first making a negative and then producing prints therefrom (the negative-positive method) are spliced into the rest of the film with the emulsion facing the lamphouse. With the action on reversal film such titles may appear slightly out of focus on the screen, since the emulsions of the reversal film and of the title are on opposite sides of the film.

Let us turn now to the production of trick titles. There seems to be no limit to the variation in effects that can be produced. The individual in-



The Bell & Howell Black Letter Titler

genuity of each filmer usually gives birth to a number of novel effects. I shall just introduce to you the various manners of producing trick titles. Thereafter different effects will suggest themselves. We will be interested to hear from cine enthusiasts who have produced trick title effects. I am sure the readers of this column will be interested in the results obtained by other amateurs.

The simplest effect to employ is fading-in and fading-out. To fade-in the diaphragm of the lens is closed down completely and the hand placed over the lens. Start the camera and slowly open the diaphragm to the point previously determined as the correct exposure. Fading-out is an opposite procedure. In this case towards the end of the title the diaphragm is slowly closed down as far as it will go and

The Victor Titler

the hand is then placed over the lens. The latter procedure is necessary because the diaphragms of most lenses do not close down completely.

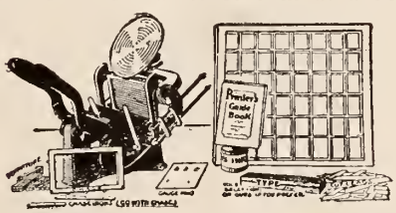
A second effect to utilize is reverse action. Cameras such as the English Super-Kinecan, the Cine-Kodak Special, and the new Professional Filmo, are constructed so that the film can be run backwards, simplifying matters in the production of reverse action. The film is exposed upon the title while the former is wound backwards instead of the usual forward manner. The possessor of the usual type of camera will have to "shoot" the title with the camera held upside down in order to produce reverse action effects. As an example of the effect produced in this manner—set up a block letter title upon a large sheet of paper. Photograph it with the film running backwards or with the camera held upside down. Towards the end of the title move the sheet of paper so that the block letters will fall down one or two at a time. When the title is returned from the laboratory and spliced into the roll of film end for end, on the screen it will appear as if the block letters spring up from a lying down position to form the title.

Then again we have animation. In this case one or two frames are exposed at a time, the components of the title being moved after each exposure

The Victor Titler folds up to a very compact size

Many cameras are provided with a device whereby one frame of film can be exposed at a time. Should your camera not be so equipped, by switching it to half speed and barely touching the release one or two frames will be exposed at a time.

A title which appears to write itself can be made in this fashion. A little is added to each letter at a time, one or two frames being exposed after each addition. Animation combined with reverse action produces unusual effects. As an example, a title card is set up and photographed with film run backwards or the camera held upside down for a sufficient time to be easily read upon the screen. The camera is stopped and adjusted to expose one or two frames of film at a time.



The Kelsey Press and Complete Outfit for Printing Titles

A small piece is torn off the card, one or two frames are exposed. Another piece is torn off the card and again one or two frames are exposed. This is continued until the card is completely demolished. When the title is returned from the laboratory and correctly spliced into the roll of film it will appear upon the screen as if small bits of paper fly together to form the complete title.

I have exceeded my alloted space and will end our discussion of titles at this point. I will explain some further methods of producing unusual titles next month. Amateurs who have devised means of producing unusual titles are invited to send an explanation of the manner in which they produce such titles. Photographs of special equipment constructed by the amateur to effect such titles will also be welcome. I am sure our readers will be interested in what other filmers are accomplishing.

News of the Visual Instruction Field

by H. L. Kooser
(In charge of Visual Instruction Iowa State College)

Inquiries concerning Visual Education will be gladly answered by Mr. Kooser. Send stamped, self-addressed envelope with your questions to Mr. H. L. Kooser, PERSONAL MOVIES, *Sippo Lake, Canton, Ohio.*

NEW UNITED STATES DEPARTMENT OF AGRICULTURE FILM SLIDES

The United States Department of Agriculture announces the production of a new film strip entitled "The Farmer and Our Foreign Market." This series of twenty frames shows the expansion of our foreign trade from 1909 to 1920 and the tremendous contraction of trade since then without parallel reduction of production, thus piling up a surplus that has resulted in ruinous prices for farm products.

U. S. D. A. film slides are available to teachers and agricultural workers at a very low price. For details write to the Extension Service, United States Department of Agriculture, Washington, D. C.

The International Review of Educational Cinematography

The July issue of this splendid magazine, published in Rome, Italy, by the League of Nations, contains many interesting articles.

The following subjects appear in this latest issue:

"The Future of the Sound Film in Teaching" by Walter Gunther. — (Translated from the German). This is a discussion of music in the teaching film, the reproduction of natural sounds, the talking film's function, sound-on-film or synchronized discs, and suitable subjects for sound films.

"The Films We Want" by Dixon Scott. Mr. Scott is a prominent motion picture exhibitor in the northern part of England. The article contains a great deal of very interesting material on the aspects of motion picture production, demands by exhibitors, demands of the public and the education of people in the motion picture.

"The Educational Cinema and the Spanish Pedagogic Missions" by Carmen Conde. This is an interesting discussion on the use of motion pictures in the traveling schools of Spain.

"Economics and Philosophy of the Cinema" by Vinicio Marinucci. Included are paragraphs on the motion picture as an industry, the motion picture and political propaganda, the motion picture and social questions, and films with a philosophical character.

There are also a number of news items and reveiws of publications and books in this issue.

New and Improved Mazda Lamps Recommended for Projection and Stereopticon Use

The Summer, 1933, issue of the "Magazine of Light" contains a splendid discussion on the subject of projection lamps.

Many new developments have taken place, giving for several classes of projectors screen illuminations averaging nearly twice as high as those available two years ago.

"The improved line meets the expanding requirements of picture projection by providing lamps adapted, both in characteristics and cost, to the needs of diversified services and types of projectors. This has been accomplished with a relatively small number of lamps.

"All of the lamps for motion picture projection show improvement in voltage per unit of source area, that is, in concentration of source. Means have been introduced for the better control of bulb blackening. A marked advance has been made in the voltage of a given size of bulb.

"All lamps are of the 100 volt class, obviating the expense and weight of auxiliary transformers or large resistances used in the past with low voltage lamps. This is regarded as one of the most important practical results of the successful efforts toward greater source concentration. It is anticipated that, except on the lower priced projectors, the practice will become general of using 100 volt lamps in series with a small resistance and in combination with a voltmeter which will permit the adjustment of the resistance so that the lamp will receive 100 volts on all circuits. Thus the full advantage of the high light output of a lamp of 25 hour life will be combined with satisfactory lamp performance."

The article continues with details of construction, sizes, etc.

The Educational Talking Picture

In the July issue mention was made of the book bearing the title "The Educational Talking Picture." This publication has been released and it is a splendid discussion of the sound motion picture in teaching.

The book was written by Frederick L. Devereux in collaboration with Nickolaus L. Englehardt, Professor of Education, Teachers' College, Columbia University; Paul R. Mort, Professor of Education, Teachers' College, Columbia University; Alexander J. Stoddard, Superintendent of Schools, Providence, Rhode Island; and V. C. Arnspiger, Director of Research; Howard G. Stokes, Director of Production; M. R. Brunstetter, Research Associate; and Laura Kroeger Eads, Research Associate of Erpi Picture Consultants, Inc.

Completely illustrated, the publication covers very thoroughly and completely the subject as indicated in the title of the book. The following are the titles of the various chapters:

I. A New Force in Education.

II. Organizing Talking Picture Materials.

III. Translating Instructional Materials Into Talking Films.

IV. Standards of Excellence.

V. Appraisal of the Educational Talking Picture.

VI. Suggested Fields for Future Research in Educational Talking Pictures

VII. Utilizing the Educational Talking Picture on the Elementary and the Secondary School Levels.

VIII. Administering a Local Program of Audio-visual Instruction.

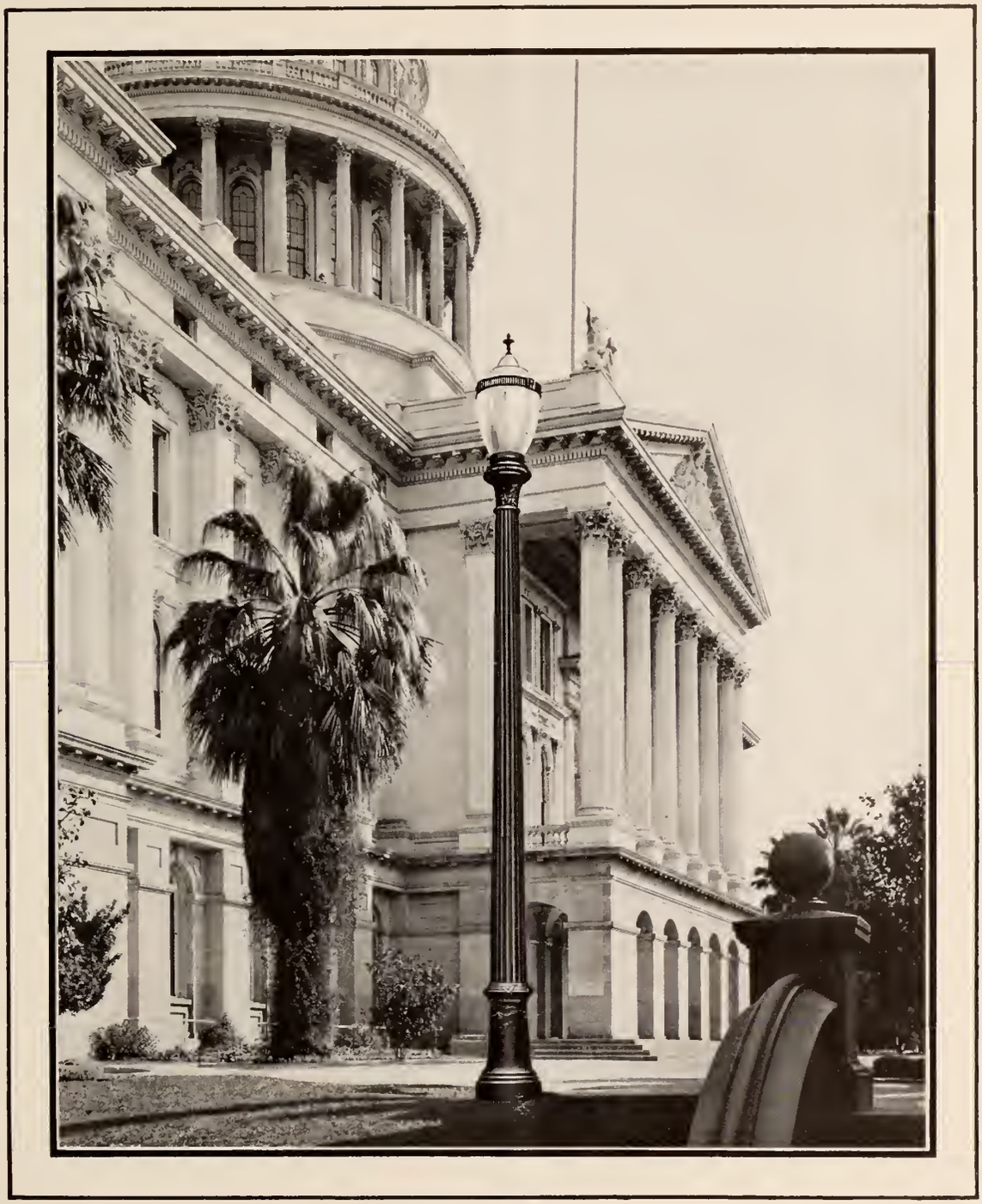
IX. Use of the Educational Talking Picture on the Adult Level.

X. Utilization of the Educational Talking Picture on the Adult Level.

XI. School Building Requirements for Audio-visual Instruction.

XII. Types of Equipment and Standards for Their Selection.

The details of production and selection of materials are very complete



and well written. Educational aspects of the talking motion picture are covered in great detail.

Suggestions on a School Visual Aids Program*

Visual instruction or the use of visual aids is defined by Dorris as "the enrichment of education through the seeing experience."

Perhaps the first question to be considered in planning a program of visual aids for a school system is what materials might already be available and those that you might want to use but that would not be readily obtainable.

Many visual aids are already used in the schools. Please note the following list:

1.—Apparatus.
2.—Blackboard.
3.—Bulletin.
4.—Cartoon.
5.—Chart.
6.—Motion Picture.
7.—Sound Motion Picture.
8.—Exhibit.
9.—Slide.
10.—Film Slide
11.—Stereograph.
12.—Text Book Illustration.
13.—School Journey.
14.—Cuttings from Newspapers and Magazines.
15.—Demonstrations.
16.—Diagram.
17.—Dramatization.
18.—Drawing.
19.—Globe.
20.—Graph.
21.—Map.
22.—Model.
23.—Museum Collection.
24.—Pageant.
25.—Photograph.
26.—Post Card.
27.—Poster.

28.—Print.
29.—Sand Table.
30.—Sketch.
31.—Specimen.
32.—Tableau.

Many of these aids are, you will note, materials available at first hand. Motion Pictures, lantern slides, film slides, and similar projected materials are probably not readily available to most teachers. These, therefore, must be borrowed or purchased.

Projected visual aids require some device for showing the materials on the screen. It is, therefore, necessary to determine what equipment is available. These projectors may be divided into four classes.

1.—Motion Picture.
2.—Glass Lantern Slides.
3.—Film Slides.
4.—Opaque Material (Includes post cards, prints, etc.)

Each visual aid has a distinct place in the educational process. If all types of projection equipment happen to be available, and an intensive program is carried out, there will be an opportunity to use many types of material. However, if only a motion picture projector or a glass slide stereopticon is available, the projected materials will, of course, be limited to that particular form. However, lack of equipment need never hold up the visual program.

Discussion of the Common Projected Visual Aids

The Motion Picture

The motion picture is perhaps the most popular and spectacular of the visual aids, primarily because of the element of motion. This popularity has not only been evinced in the entertainment field, but in the educational field as well.

Developments in motion picture photography and technique have made possible many sensational productions in the form of motion pictures. We refer especially to animation, color, microscopic motion pictures, telephoto effects, stop-motion, and time-lapse photography.

The use of the motion picture has been developed in many fields such as history, geography, biology, medicine, industry, safety, health, etc. Therefore, the prospective user of motion pictures will find available an almost unlimited supply of very fine films on a multitude of subjects. These films may be obtained from many sources, both commercial and educational. In most states, libraries of films are available from the State Agricultural College or the State University.

Recent developments in 16 millimeter motion picture projectors and film have tended toward the standardization of this type for educational use. Many schools have 35 millimeter, standard-width, projectors available and it will be found that these machines may be used effectively in a visual aids program. Usually, however, these larger machines must be kept in some central place, while the small projectors may be used in the classroom. This does, we believe, add greatly to the value of the film as a teaching aid.

Developments are under way toward the production of educational sound motion picture libraries. Many advances have been made in this field and it seems that much worth while material will be available soon, especially in the high school, college, and university field.

*A preliminary discussion of this subject was included in this column several months ago. The present article, however, is the first of a series in which this subject is completely discussed.

(To be continued in November)

The editor of this column will welcome inquiries concerning suggestions in the visual field.

Wins Title

of Miss White Sulphur Springs second time

For the second year in succession, golden-haired Elsie Nutty was awarded first place in the beauty contest at the annual picnic of the Greenbrier Amateur Movie Club, White Sulphur Springs, W. Va.

Helpful Hints for the Amateur

by M. Luther Keagy

To Sharpen Blade on Print Trimmer

Clean the blade and straight-edge thoroughly then rub a slight coating of paraffine wax along edge of both the blade and straight-edge. Usually this will make it cut like new.

How to Strip Emulsion from Glass Plates

Place the plate in ice water for 8 to 10 seconds. Then lay flat on a towel or blotter, blotting up the surplus water. Be careful not to rub. Then start to roll up the emulsion from the corners of the plate. You will find it an easy matter to peel the emulsion off without any trouble.

Retouching Your Negatives

Sometimes amateur photographers find it necessary to remove harsh lines and spots on negatives in making portraits. With a little practice this can soon be mastered by anyone who is the least bit skilled with pen or pencil. Three things are necessary—a small amount of retouching fluid, a suitable pencil, and a little patience. For the average use I would suggest a 2H Koh-I-Noor pencil. Eastman retouching fluid can be obtained at most photographic supply stores and is excellent for this purpose.

First take a small tuft of cotton and moisten it slightly with the retouching fluid. Then apply fluid to the film side of negative on the portion which is to be retouched. This gives the negative a "tooth" enabling it to take the lead or graphite from the pencil quickly and smoothly.

It is advisable to sharpen the pencil to an almost needle point because the retouching in most cases must be done very lightly. It is a good idea for the beginner to practice on old discarded negatives, making contact prints now and then to check results. After the negative has been prepared with the retouching fluid, begin lightly to touch up the transparent spots. It is advisable to work very, very slowly at first. Too much pressure on the pencil will cause white spots to appear. Some workers use india ink for retouching with a very small brush. However, for the amateur it is advisable to try the pencil first.

In case you have retouched a negative too heavy or made an error which you wish to correct, the retouching fluid may be removed by flowing the negative with denatured alcohol. After this has been done and the negative is dry, you can then start all over again. Like other arts where a certain amount of skill is required, retouching necessitates more or less practice to become proficient.

Making Slides in Holder Easy to Withdraw or Replace

If the slide in your film or plate holder sticks or is difficult to withdraw, first smoothe the rough edge down with a bit of fine emery paper then apply a small amount of paraffine wax around the extreme edge of the slide by rubbing.

Making Your Own Reflectors

Do not throw away the silver foil that the manufacturer places around your film for protection. By saving this and pasteing several sheets on a large piece of card board you can make a very efficient reflector to be used in conjunction with either Photoflood or daylight illumination for both personal movies and portraiture in the home.

To Prevent Glass Stopper in Bottles from Sticking

Clean off the stopper thoroughly, then lightly grease with a small amount of vaseline. Often paraffine can also be used to an advantage.

Mercury Intensifier

Bleach the negative to be intensified in the following solution:

Potassium Bromide	¾ oz.
Mercuric Chloride	¾ oz.
Water to make	32 ozs.

After negative has been bleached in the above, wash thoroughly for about 10 minutes. The negative is then placed in a Sodium Sulphite solution which consists of the following:

Sodium Sulphite	1 oz.
Water	9 ozs.

Wash for about 15 minutes then dry. The above process will usually "snap up" a flat negative considerably.

Diffused Enlargements

In making enlargements you can accomplish many degrees of diffusion by using different meshes of wire screen. A very fine copper or aluminum mesh will give a beautiful diffused effect. It is suggested that various meshes be tried to obtain the desired degree of diffusion.

A H andy Device for "Dodging" Enlargements

Dodging enlargements, or holding back the shadows is a stunt which must often be resorted to. A handy device for local or spot dodging may be made by taking a wire about two feet in length and at one end make a complete circle and a half about two inches in diameter. This circle is a sort of a spiral clamp which is to be used for a holder for dodging screens. These screens may be made from either extremely dense cut films which have been discarded or red or amber celluloid. These pieces of film or celluloid should be cut into various sizes and shapes. In dodging, the screen is simply slipped into the circular clamp, which is used as a holder. The long wire handle serves as a means of manipulating to the best advantage. By using amber screens the image may be observed through the screen, making it possible to clearly ascertain the extent of the area covered.

Local Reducing

Here is a method of local reduction for negatives which may be used to an advantage in some cases. However, as in all retouching which involves the physical altering of the negative a certain amount of care and caution must be exercised.

Take a small portion of floor wax —say about one-fourth ounce, and mix thoroughly with powdered flour of emery. This should be completely mixed to an even consistency. Apply this as an abrasive with the end of the finger. Rub gently with a circular motion until the parts are reduced sufficiently.

Separation of Alcohol from Water

Where alcohol is used for acceleration in drying of negativess it soon becomes weak with water. To restore its strength or to separate the alcohol from the water, place a small quantity of dry potassium carbonate in the bottle, shake thoroughly and let it stand for a while. The carbonate will absorb the water which remains at the bottom of the bottle allowing the alcohol to be poured off.

Miniature Cameras and Miniature Photography

A Regular Monthly Feature

by Karl A. Barleben, Jr., F. R. P. S.

Mr. Barleben will gladly answer any questions regarding miniature camera photography. This service is open to all readers of PERSONAL MOVIES. *In writing, be certain to enclose a self-addressed and stamped envelope. Simply address Mr. Barleben,* PERSONAL MOVIES *Magazine, Sippo Lake, Canton, Ohio.*

Notes on Natural Color Photography

Part Four

Only recently a novel natural color system has become available for owners of the Leica camera. At this writing, specific details are not obtainable; however, a few of the outstanding features can be told. At a later date I may be able to present a complete description of it.

For the present, this method is intended for projection purposes upon a screen, in the manner of a lantern slide. The film is a special type designed and made by Agfa which has a color lens-grating on its glossy side. A special filter is used on the Hektor 73 mm, f:1.9 lens, which is required. The lens has a special attachment built on it for accommodating the color filter in its proper position. Owners of this lens can have it converted to accommodate the filter at a slight extra cost. The Hektor f:1.9 lens is necessary for this process in order that snapshots of from 1/20th to 1/100th of a second may be made in bright sunlight when taking moving objects. The speed of the special film is given as being from one-half to one-third slower than normal orthochromatic film of average speed—hence the added need for the fast f:1.9 lens.

In projecting the color pictures as made by this system, the same Hektor lens which was used on the camera is used on the projector. A filter is used during projection, too, and this filter is matched to the color of the projection illumination bulb. It is balanced according to the right voltage and wattage so that true color rendering is made possible on the screen.

The processing of the film is done according to the instructions issued by the Agfa Company for their normal color films with the colored-grain base. Since it is not desirable for every owner to do this processing for himself, certain laboratories will undoubtedly take this work over to accommodate those who do not care to do it themselves.

It is suggested that the films be cut apart and bound individually between glass cover-slips. In this way the pictures can be kept flat and firm during projection, and are always fully protected. The glass slides, 2 x 2 inch square, as usually used for Leica pictures, are ideally suited for binding the color films.

More on this system will be presented as soon as more detailed information is available.

In line with this, we might also mention that a natural color rollfilm will eventually find its way on the market. We have extended our word not to give details of this method until it is officially announced, but we can say that it is a product of one of the largest film manufacturers in the business and from all indications will, in a short while, become exceedingly popular. This means that at last rollfilm camera users can enjoy natural color photography along with their fellow-enthusiasts who use cameras accommodating cinema film. More about this system, too, when the news is available.

And now let us for a few moments consider the production of color pictures by means of the two and three color separation method. This process requires no special equipment excepting two or three filters and panchromatic film. The story is briefly, that an exposure is made of the object through each of the filters used—in the two color separation, two exposures are made, in the three color separation, three exposures are made. For example, if we are making a three color separation picture we make three exposures in succession, one through a red filter, the second through a violet-blue filter, the third through a green filter. These are the well-known A, B, C filters (Wratten series). Obviously the object being photographed must be inanimate, such as a bowl of fruit, a vase of flowers, etc.

The three exposures thus made through the three filters are subsequently developed in the usual manner as for regular black and white pictures, and later printed onto positive film. The positive prints are then toned according to their respective positions and filters they were exposed through. The toning formulas as given in the September issue of PERSONAL MOVIES are to be used, as this process is nothing more than a simplified Du-Pac color system.

Filters may be purchased, or a special tri-color filter known as the Omag filter set may be purchased. The latter contains the three filters in a row on a single strip of glass for easy handling.

This process is practically obsolete these days, because the two color Du-Pac film is far easier and simpler. Secondly, it lacks the advantage of Du-Pac in respect to moving objects—Du-Pac, as you know, permits the two exposures to be made simultaneously, hence moving objects can be easily recorded, whereas the two or three color separation demands still-life subjects because naturally enough, two or three exposures in succession cannot be made of a moving object and have the object in exactly the same relative position on the film.

However, in the brief description given in this series we hope we have given the outline of the most popular methods. In no case did we mean to go exhaustively into color photography, but merely to point out and indicate the processes available today. For a further insight the reader is referred to "Practical Color Photography" by E. J. Wall, Hon. F. R. P. S., "The History of Three-Color Photography" (if you can get it) also by Prof. Wall, and "Technique of Color Photography" by F. R. Newens, F. R. P. S.

Color photography for the miniature camera is an accomplished fact. Those interested are respectfully urged to investigate the merits of the processes outlined in this series. For the benefit of those who missed the previous chapters, we will, in the way of a resume, list sources of information:

TED LEWIS' NIGHT CLUB. Leicaphoto by J. Steinmetz
DuPont Superior film, 1/20th second exposure, f:2.5

R. J. Fitzsimons Corp., 75 Fifth Av. New York City (Lumiere Filmcolor).

DuPont Film Mfg. Corp., 35 w. 45th St., New York City (DuPac process).

Filter Notes

Almost everyone knows that a filter marked "2x" means "two times increase in exposure when that filter is used." This in turn means that the lens diaphragm is to be opened *one point or one stop* (not two points) more than the exposure meter calls for without a filter. For all ordinary purposes these factors may be used with confidence, although it must be borne in mind that filter factors are not *true* factors. They cannot be, in fact, because so many elements are involved. It might be interesting to review a few of the most important, from which the amateur can guide himself.

First, it is highly important that the film emulsion be of a type that is suitable to the filter. For example, orthochromatic film can be used successfully only with U. V. and yellow filters. All other filters require a panchromatic emulsion. Keep this in mind, for it is important.

Secondly, each filter will have a different factor for each type of film, hence ortho film requires a greater increase in exposure than pan film, when using a yellow filter of the same density. This is because the pan film possesses the various color characteristics which are absent in the ortho film.

Third, any given filter will require a change of filter factor when used under lights of different quality and character (not intensity). To illustrate: early in the morning the sunlight is of a definite color as a rule. Usually bluish. Later, in the afternoon, when the sun starts to sinks in the west, the light takes on a decided yellowish or redish hue. Surely the same filter factor cannot be applied to both cases, for the filter will re-act differently in each case. This problem of light-color is not to be ignored, and those using filters should be aware of the fact that filter factors are but *approximate figures,* and not intended to be definite rules.

We find then, that "2x", "3x", etc., are relative only, and while they serve as a rough guide, the best results with filters are secured only by taking into consideration the combination of film, filter, and illumination.

To give an idea as to the filter factors issued by film manufacturers, examine the following table which concerns itself *only with DuPont panchromatic and Dupont Special panchromatic films, and Wratten filters.* Any other make or type of film, or any other make of filter would not fit into this table. Each film and each make of filter must be matched carefully. This table is not accurate, for example, when considering Eastman Supersensitive panchromatic film — a different table would be needed for this film.

Filter	*Filter Factor*
K-1	2.2
K-2	3.1
G	5
F	10
A	7
B	16
C	12

To more forcefully illustrate how factors differ, let us use the same filters but for *DuPont Superior Panchromatic film.*

Filter	*Filter Factor*
K-1	1.9
K-2	2
G	2.9
F	17
A	8.5
B	5.6
C	11

These two tables give a wealth of information to those who are interested in emulsions and filters —they tell at a glance how the two types of pan film, made by the same manufacturer, differ in respect to color sensitivity. Upon this factor hinges the filter factor of each and every filter.

While we are at it, we might as well mention a few other filter factors for *DuPont Superior panchromatic film* for the benefit of those who have some of these filters.

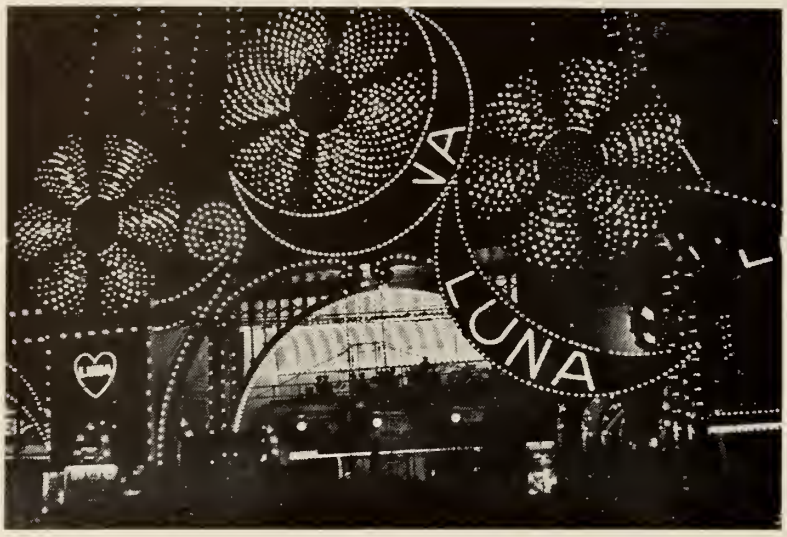
Filter	*Filter Factor*
Aereo No. 1	1.7
Aereo No. 2	2.7
X-1	3.1
X-2	3.8
23-A	6
72	70

Before continuing, I wish to point out that all of these filters need not be owned by the miniature camera enthusiast— on the contrary, a few filters such as a medium yellow filter, an X-1 for use with Eastman Supersensitive Pan (only), a light red filter such as the Wratten A, and possibly a U. V. (ultra violet) filter for haze-cutting will be found all-around filters for average use. If it comes down to one universal filter I would select a medium yellow one, for with it, all films can be successfully used, and it is surprisingly what remarkable results can be secured with it when handled correctly.

For those wishing a handy reference table, I would suggest reading "The Leica Data Book", price fifty cents, from all good dealers or direct from the book department of PERSONAL MOVIES *magazine, Sippo Lake, Canton, Ohio.*

Night Photography

We usually associate photography with sunlight, or at least daylight, yet in these modern times, successful photographs can be made with as much ease at night as in the daytime. Night photography imposes no hardships and results in unusual effects if intelligently done. In order to assure success in this work, let us for a moment dwell



LUNA PARK AT NIGHT. Leicaphoto by George V. Moran
Agfa Superpan film, 1/20th second exposure, f:3.5

on the necessities—if such they may be called.

Many amateurs have the mistaken idea that a special camera, or at least a super-fast lens, is needed. Such is not the case, however. Any miniature camera with a reasonably fast lens is capable of producing night scenes. Naturally enough, however, the faster the lens the greater the scope of activity. But the customary f:3.5 and even f:4.5 lens will found to possess ample speed for all ordinary purposes. Most night scenes are taken in well-illuminated streets, such as Times Square, New York City for example, the most popular and most photographed spot in perhaps the whole world. At night this section is ablaze with thousands of mazda and neon lights, and the streets are nearly as bright at night as in the daytime. Theatre marquees, store fronts, and illuminated signs offer their contribution to the mass of light as seen in general in the "Square." In this particular neighborhood, snapshots can be made with the f:4.5 lens and panchromatic film at 1/25th of a second with a fair assurance of success. This is so particularly if some of the signs are included in the scene. If a faster lens, such as f:2.5, f:2, f:1.9, or f:1.8 is available, the shutter can be moved proportionately faster, or, darker areas can be covered.

One important point should not be over-looked. A panchromatic film should in all cases be used in the camera, because the bulk of illumination is of the mazda type, that is, incandescent, hence is somewhat lacking to a great extent in the violet and blue light which the ortho film is most responsive to. Then, too, many of the lamps are colored red, green, blue, orange, pink, etc. It can be readily understood that the ortho film would miss a tremendous amount of this available illumination because of its inability to record these various colors. A speed pan film will undoubtedly serve best in night photography in which mazda lights figure prominently. Films of this nature which can be recommended include Agfa Superpan, DuPont Superior, and Eastman Kodak Supersensitive pan.

It is also advisable to use a film that is "anti-halo" backed, so that reflection and flare will not result. Most of the super pan films are coated on their glossy side with an "anti-halo" backing, so this consideration can be ignored unless the film is definitely of the plain, uncoated variety.

There is a certain technique needed in judging night picture negatives. To the beginner, his negatives will appear hopelessly under-exposed., yet whether this is so or not depends entirely upon the effect wanted. Perhaps the most successful form of street photography at night is to expose for the multi-colored illuminated signs themselves, securing the individual bulbs as pin-points on the negative and permitting detail, such as the street, passers-by, and traffic to become lost in the darkness. In this way a pleasing pattern of light designs against a black background is secured. On the other hand, the amateur may want to try his hand at dark, shadowy detail, or at least figures on the sidewalks and street. The best way of securing such scenes is to pick out a theater-front which is brilliantly illuminated—one in which the side-walk has ample illumination, then expose for that section. The people walking by can then be photographed with an average shutter speed, providing a fairly fast lens is on the camera. There is real danger, in such a scene, in trying to include the lighted signs themselves, for they will be hopelessly over-exposed, resulting in a poor picture in which the detail of the signs is lost, although the people on the side-walk will be properly exposed.

Naturally the matter of exposure is one of great importance in night work. It is strongly suggested that a reliable exposure meter be used, for in this work no amount of experience can be relied upon to determine *accurately* the available *photographic* light. Slide-rule meters are absolutely out of the question. Meters of the extinction type are better, and excellent results can be determined best by using one of the photo-electric meters now available, of which the Weston Photronic meter is a good example. Such meters require no visual observation. Merely aim the cell of the meter at the object to be photographed, or any particular part thereof, and read the dial—what the needle indicates will be correct, without a doubt. Another interesting fact concerning these meters is that they record not only the intensity of light, but the photographic recording power of the *color* of the objects as well. This is of great importance, and has for years been neglected in photography. One need only try out an electric meter in this respect to be convinced what a difference color makes on the photographic emulsion.

Paramount Theatre at Night. Leicaphoto by John P. Gaty. DuPont Superior film, 1/30th second exposure, f:2.5

While we are photographing at night, don't think that a sunshade will not be required. Especially when working amid many lights and signs,

MOVING LETTERS IN LIGHTS. Leicaphoto by Werner Stegemeyer. Eastman Supersensitive pan film, 1/60th second exposure, f:1.9

the sunshade will effectively serve in preventing stray light rays from reaching the film through the lens. Sounds silly to use a sunshade at night, but facts are facts. At night you can call it a lens shade if you wish.

Interior night shooting is another matter, which we shall go into in more detail in a future issue. While it is still warm outdoors, you should be out with your miniature camera, day and night. Simply use a fast panchromatic film, a good exposure meter, and develop the film in a soft-working developer, and your night shots will very likely surprise you.

This Month's Formula

The Pictorialists of San Diego, California, offer this formula which they are using with exceptional success. It is a modification of the D-76 Borax formula.

Metol (or Elon)	1 ounce
Hydroquinone	2½ ounces
Sodium sulphite	10 ounces
Borax	10 ounces
Water	1 gallon

Dissolve in the order given. Add 4 gallons of cold water before using. Develop at 65° F.

Luis Marden, versatile radio announcer of station WLOE, Boston, who conducts the "Camera Club of the Air" every Monday night at 8:30 is also an ardent Lumiere Filmcolor fan. He shoots miles and miles of Filmcolor for his own amusement, but more than that, he uses his Leica to record candid photos of studio personel for the weekly newspaper called "Microphone", a newsy paper published in the interest of local radio news in New England. We are glad to note that under each of his photos appears a by-line, giving him credit for the picture. Good work, Luis.

The Question Box

Question: I do considerable cruising, and am wondering if, when I delevop my films on board my small boat, it is permissible to wash them with sea water after they have been developed and fixed.— S. F. L.

Answer: Sea water may be used to wash films *temporarily*, but it is suggested that they be washed in fresh, clear water later in order to remove any possibility of chemical stain or deterioration which may possibly result from certain chemicals in sea water. This final washing can wait until you reach shore. Many yachtsmen develop their own films aboard ship and practice this regularly.

Question: What miniature camera is the best regardless of cost?—T. A. J.

Answer: This question cannot be answered, for it all depends upon what the camera is to be used for, how much you are willing to pay for it, what type of film you prefer using, and many other points. There really is no such thing as a "best" camera. All cameras are reliable, and turn out excellent work *if handled properly*, and upon this depends everything—how the instrument is handled. A cheap (in price) camera can be made to turn out pictures worthy of a salon exhibition *by one who knows how to use it;* on the other hand the most expensive camera can produce nothing but miserable failures in the hands of an inexperienced or careless worker. The best advice I can give you in this matter is to look at all the cameras available, try them out if possible, then consider their cost. After a careful consideration, pick the one that appeals to you and your pocketbook—you won't go wrong, I can assure you. Modern miniature cameras, everyone of them, can be depended upon. And don't let a salesman talk you out of the model you select. If you study all cameras carefully, you are in a better position to be the judge than he, for you are going to use it, and your ideas are worth something to yourself.

Question: How many films can be developed in one solution of developer?—O. P.

Answer: It all depends upon the formula. Some will keep for several months, and can be used to develop from six to ten rolls of film, others can be used but once because they oxidize rapidly. Of the formulas with good keeping qualities we might mention D-76, Perutz, Nograin, and Glycin. It is not wise, however, to use a developer too long.

Experiments tend to prove that a worn developer definitely slows up the speed of a film, thus causing a loss. In view of this fact, it is highly advisable to use a fresh solution for each film if the utmost in results is to be expected.

It is interesting to note that some experimenters have kept and used developers for six and eight months. The solutions in time turned muddy and "slimy", yet they produced a finer grain when old than when new. But leave this to experimenters. The average amateur should use fresh solution as often as is reasonably consistent with economy.

Hypo, on the other hand, should be changed preferably for each film, although it can be used again for two or three more films. It is so cheap that the amateur can afford to discard it after every film.

In general, it is false economy to keep developing and fixing solutions too long.

Question: Are there any fine-grain panchromatic films available? — G. H. R.

Answer: DuPont ¼-Speed Pan and Eastman Panatomic are highly recommended for fine-grain results.

Question: Is it possible to use standard 35mm cinema film in a rollfilm camera?—W. N.

Answer: No, with the sole exception of the Rolleiflex which may be equipped with a special back which accommodates cinema film. This back interchanges with the regular rollfilm back.

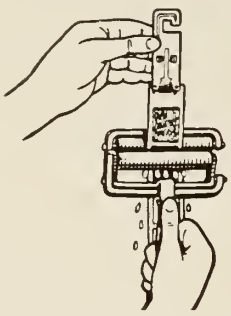
Window Shopping

Let us this month look at a camera with a focal plane shutter and reflecting mirror, the National Graflex. This

The National Graflex

camera is something of a new-comer in the ranks of small cameras, and while it can hardly be classed as a true miniature camera, it is a definite trend toward smaller cameras in general. Indeed many miniature enthusiasts use this and similar cameras with full confidence that they are miniature camera workers, and in a sense they are correct. At first the barriers of miniature cameras were held to maintain the classification up to full vest pocket size only, but since a number of slight-

ly larger cameras have appeared which produce two pictures on a normally single film area, we cannot object too seriously.

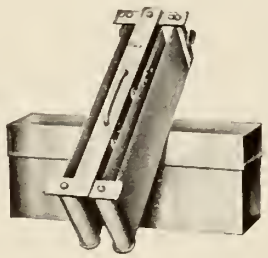


The Brooks Roll Film Dryer

The National Graflex uses the regular 120 rollfilm (which ordinarily produces pictures 2¼ x 3¼ inches). This camera makes 10 pictures per roll, each measuring 2¼ x 2½ inches. The National Graflex might be termed a miniature Graflex, for basically it embodies the main features of the larger Graflex. This baby camera is small and compact, and requires no carrying case, as all controls and projecting parts are covered and protected when the camera is not in use. A convenient carrying strap is attached.

The optics consist of a B. & L. Tessar, with a speed of f:3.5. The reflecting mirror shows the image in full brilliance, full negative size, and the focal plane shutter is ingeneously coupled with the winding knob so that double-exposures cannot be made.

The National Graflex is a splendid instrument for those who like to work with a trifle larger than the standard miniature size negatives. Full details may be secured by writing directely



The Brooks Developing Tank

to the Folmer Graflex Co., Rochester, New York, or visiting your local photograhpic dealer.

Drying of the miniature film after development has always offered difficulties and dangers. The film must be wiped free of surplus moisture if it is to present a "smooth", clean surface. Various methods have been used for this purpose, cotton, chamois, etc., but now comes a clever rubber roller device which works quickly, efficiently, and *safely*, the Brooks Roll Film Dryer. It consists of two rubber rollers mounted on a small handle. The rollers themselves may be separated by pressing a small lever. The film is merely inserted between the rollers, and with one sweep, the film is freed from all water spots and excess moisture. There is no danger of scratching the film, and the pressure on both sides of it is uniform. It takes but a minute to wipe the small films perfectly with this device.

Every miniature camera enthusiast who does his own developing should own one of these rollers, for it will enable him to forget about film scratches and uneven drying.

Burleigh Brooks, 127 West 42nd Street, New York City, will be pleased to send a descriptive circular on the roller. Its price is extremely reasonable.

There is also a square, chromium plated metal developing tank for miniature films. A framework upon which posts are built holds the film, the unit fitting into the tank. The metal is rust-proof, and will last indefinitely. Tanks are available in several sizes to accommodate standard 35 mm cinema film, vest pocket film, and 2¼ x 3¼ film.

Burleigh Brooks offers literature on this new metal developing tank, too. When you stop to consider, Mr. Brooks has done a great deal for miniature photography. It is he who

The Correx Tank for Roll Film

brought the Foth Derby camera and enlarger, Dolly, Vest Pocket Dolly, Rolleiflex, Pilot, Eho, Rajah enlarger, Granaco enlarger, Film Dryer, and developing tank to the attention of miniature camera enthusiasts.

And while we are shopping for developing tanks, let us examine that new Correx tank that accommodates vest-pocket (127) and 2¼ x 3¼ inch rollfilm. You are familiar with the small Correx tanks that hold cinema film, but here is a new one to suit the rollfilm camera user. This method of developing film is undoubtedly the most satisfactory and easy. A special celluloid band is wound between the film-layers onto the reel, and then immersed in the solution in the tank. Once the film is in the tank, and the lid placed in position, subsequent operations may be carried out of the light, as the tank is light-tight. Willoughby's Inc., 110 West 32nd Street, New York City, will be glad to send you a descriptive circular on the new Rollfilm Correx Tank.

He Knows His Caddy

"Where nowadays will you find the youth who can smile when everything around him is going wrong?"

"On the golf course tomorrow morning, carrying my clubs."

NEW COMBINATION ENLARGING DEVICE

E. Leitz, Inc., announces a novel feature in connection with their enlarging apparatus. The popular Valoy enlarger can now be supplied with attachments whereby it may be used not only for making enlargements, but for reading manuscripts and projecting pictures upon a screen as well.

A special rotating film carrier permits the film image to be placed in any desirable position, regardless of the position of the film in the enlarger. A special box may be placed under the lens, whereby film records of manuscripts, legal documents, maps and book pages may be read with ease. On the front of the box is situated a ground glass screen, sloped at a convenient angle. A mirror within the box reflects the image upon the ground glass screen. The user need only seat himself comfortably in front of the screen and view the films, right-side-up and right-side-to.

When the enlarger is to be used as a projector for screen projection, a special mirror, mounted upon a universal joint so that it may be placed in any position under the lens, is attached to the enlarger. The image produced by the lens is thus projected upon a screen. The usual opal lamp in this base is replaced with a special clear projection bulb.

The feature of the equipment lies in the fact that with one unit the owner can enlarge, project and read his films with the utmost ease and satisfaction.

Details regarding this equipment may be secured by writing the E. Leitz, Inc., 60 E. 10th St., New York City.

NEW KODACOLOR PROJECTION UNIT

Of interest to 16mm enthusiasts is the announcement by the Eastman Kodak Company of a change in the present Kodacolor Unit (consisting of projection lens, compensator, and filter) for the Model K Kodascope.

The new Kodacolor Assembly enables the operator to use his regular Kodascope K lens for Kodacolor movies. He need acquire and insert only the filter and compensator, instead of having to buy a complete extra lens.

In addition to greater simplicity and less cost, the new Kodacolor unit gives about 120 per cent increased illumination. It also gives better definition and contrast, resulting in sharper and clearer pictures.

The increase in illumination is brought about by the fact that the regular lens gives over 20 per cent more light than the old Kodacolor lens, and the new filters have a much higher light transmission value thanc those formerly used.

Doubling the light gives the operator two choices in viewing his pictures; he may project them the same size he has in the past and have them twice as brilliant on the screen; or if he likes he may project them twice as large as was formerly possible, with the same former brilliance. With the new unit on the 260-watt Kodascope, the screen size may be at least 22 x 30 inches; while the K-50 and K-75 may be used with a 30 x 40 inch screen, or larger if desired.

To shift from Kodacolor to black and white pictures it is only necessary to remove the filter. The compensator may be left in the Kodascope at all times, with only an occasional removal for cleansing purposes.

Miniature Camera Club
News and Notes

BOSTON

Through the courtesy of Mr. Fletcher Steele of our Executive Committee, the Boston Architectural Club has offered us the use of its assembly room for our meetings this season, at the same rate we paid last year. Those who attended the June meeting will, we believe, welcome this announcement. The Boston Archictectural Club is located at 16 Somerset Street, near the Boston City Club.

We are very fortunate in having as the speaker for our first meeting of the season, at 5:30 p. m. September 18, 1933. Mr. George P. Warner, one of the most experienced color plate workers of this vicinity. Mr. Warner, who is now associated with Pinkham & Smith Company, has been engaged in commercial color work for many years, has a fund of technical information on color work and has had extensive experience with the Finlay, the Lumiere, and the Agfa processes. Mr. Warner will describe the various processes, color plates and films. He will exhibit some of his own slides. There will also be shown color films made with the Leica Camera by our own members, Messrs. Anderson, Crandell, Edwards, and Marden, which Mr. Warner will criticize. Formulae for developing, reversing, and intensifying color films will be distributed to those interested, and Mr. Warner will be glad to answer questions.

In the belief that some members may wish to dine together at the conclusion of the meeting, arrangements have been made to reserve a large table in the main dining room of the Boston City Club where a-la-carte service will be available for those who care to take advantage of this opportunity.

CHICAGO

Despite the intense heat the Leica Club of Chicago held its regular monthly meeting on September 8th at the Stevens Hotel. The club had the pleasure of hearing Messrs. Kerwin and Mansfield, both members of the club. The former delivered a lecture, illustrated with slides, on some 49 common amateur faults explaining in each case how they might be avoided. Mr. Mansfield followed with a talk on fine grain developing thru the use of Paraphenleyne-Diamine developers. His discussion was based on material dating back to about 1890 when the above developer was first used, also on the result of actual tests made with the various Paraphenylene-Diamine developers recommended. To more clearly illustrate the possibilities of this fine grain developer he displayed several enlargements made from portions of a negative enlarged 35x and 70x with hardly any sign of grain. One of the prints measured close to 5 feet. The results obtained with this developer are sometimes unbelievable.

The Leica Club of Chicago takes great pleasure in announcing that on Tuesday, October 3rd at the Stevens Hotel, Mr. Karl A. Barleben, Jr., F. R. P. S., of E. Leitz, Inc., and author of many articles on photography, will address the club. Mr. Barleben's talk will cover many phases of photography of interest to all camera enthusiasts. The Leica Club extends an open invitation to all Camera Clubs of Chicago to attend what will be one of the most interesting photographic meetings of the year.

A special exhibit of Leica photographs covering many branches of photography is being planned, also a complete exhibit of Leica equipment. If you have any Leica prints you would like to have exhibited on October 5th get in touch with the Leica Club or one of its members as soon as possible.

LOS ANGELES ORGANIZES

On Tuesday, October 11th, there will be a meeting of miniature camera enthusiasts in the studios of the Los Angeles Camera Club, 2504 W. 7th Street, Studio 5, to discuss the formation of a miniature camera group in Los Angeles.

Los Angeles is one of the few larger cities in the country where such an organization is lacking, and the purpose of this meeting is to talk the matter over and see what can be done about it.

The meeting will be called at 7:45 p. m. sharp.

Further details may be secured from Spindler and Sauppe, Inc., 811 West 7th Street, Los Angeles, Calif. Interested miniature camera owners are urged to attend this initial meeting and do all in their power to make the organization of a miniature camera club a rousing success.

We confidentially look forward to receiving reports from this new club for reproduction in this column in the near future.

TOLEDO ORGANIZES

Mr. Robert E. Gross of Toledo, Ohio reports that the final organization of the "Minicam Club" of Toledo took place Friday, September 8th, at which time Ed. Carr was elected president; Donald Stewart, Vice-president and Harry Johnson, Secretary.

Membership now consists of 17 enthusiastic and interested men who look forward to much pleasure, valuable experience to be obtained from work together in this club. Further details concerning the activities of this club will appear in these columns from time to time.

NEW YORK

The first meeting of the month of the Miniature Camera Club of New York was held on August 2nd. In spite of the sultry evening, sixty members gathered to hear a paper on filters given by Vernon E. Whitman, Chairman of the Technical Committee. This paper will be published in an early issue. Mr. Whitman illustrated his remarks with a series of prints of the same landscape taken with different filters.

Mr. George W. Tidd then offered some pictorial criticism on numerous landscape prints presented by various members for the purpose and pointed out especially how they might be improved.

The second meeting, held on the 16, brought together about ninety mem-

bers and guests. Its feature was a demonstration of portrait lighting by Herbert A. Newman, President of the Club. In his preliminary remarks he described the poses and lighting effects which would give the most pleasing results, offering at the same time worthwhile hints to the would-be portrait photographer.

"The Miniature Camera," the official organ of the Club is now a printed publication, 7 x 10 in size, 24 pages and cover.

John L. Davenport, editor; Fenwick G. Small, corresponding secretary.

The September number contains articles and discussions concerning various phases of miniature camera photography by members and the entire contents are well prepared and interesting.

Miniature Camera Lectures

Karl A Barleben, Jr., will give lectures on "Miniature Camera Photography" in the following cities:

October 3rd, Chicago, Ill., Stevens Hotel, (auspices Leica Club of Chicago and Almer Coe Co.)

October 6th, Cleveland, Ohio. — Cleveland Photographic Society, 2073 E. Fourth Street.

October 9th, Buffalo, New York. J. F. Adams Co., 459 Washington St.

October 11th, Schenectady, New York. Schenectady Photographic Society, Y. M. C. A. (Auspices Lyons Co.)

November 9th, Washington, D. C. Tilden Gardens. (Auspices Leica Club of Washington).

February 19th, Detroit, Mich. Detroit Edison Camera Club, 2000 Second Ave.

Other dates will be given from time to time. Everyone interested is cordially invited to attend any of these lectures.

WHO'S WHO

AMONG THE AMATEUR MOVIE CLUBS

by Hal Morey

As organizer and dramatic director of Super Art Productions, an active amateur group in Indianapolis, Ind., Mr. Frank Fitch, Jr., has established a solid reputation for himself among amateur movie circles in that city. At the tender age of seven he came into

FRANK FITCH, JR.

possession of his first movie propector, a toy affair of the hand crank variety and from then on, the movie germ spread rapidly through his system. When the calendar registered his 12th birthday, a kind uncle donated a 35 mm. camera, but finding the upkeep a little steep for his allowance, he decided to save his nickels and dimes for the purchase of a 16mm. outfit. During his second year in high school he became acquainted with a boy as equally interested in movies as himself and they decided to organize an amateur photoplay producing group. Several high school and college students were recruited and Super Art Productions was born. Mr. Fitch then set about renovating his private theatre which he had previously installed in a large garage at the rear of his residence and which now serves as the headquarters of the organization. His first production *The Super Audio Review,* is a 400 foot novelette which covers, in a modern manner, everything from miniature golf to aviation. Then came *In Dutch,* an adverture picture, followed by *The Green Eyed Monster,* a two reel comedy drama. Mr. Fitch is now directing the club's fourth opus, *The Cave Man.*

NEW 1200 AND 1600 FOOT BELL AND HOWELL REELS

For those who are inteersted in securing continuous projection of 16mm sound pictures for periods of a half hour and 45 minutes, Bell & Howell Company has developed 1200-foot and 1600-foot 16mm film reels. Also the Filmosound, the B & H sound-on-film 16mm projector, has been provided with 1200 and 1600 foot reel arms.

To be exact, 1200 feet of 16mm film, at the rate of 24 frames per second (normal speed for sound), requires 33½ minutes for projection, and 1600 feet 44⅔ minutes. However, the statement of half-hour and 45-minute projection periods will probably be more generally used in this connection.

The new B & H reels are of all steel construction and are designed for maximum ruggedness as well as for lightness and facility of operation. They have the B & H self-threading hub feature. The flanges have been cut out ont only to reduce weight but also to provide ease in threading. Lightness is a particularly desirable feature in these reels because the weight of the film alone in such lengths is a considerable factor to be reckoned with in successful feeding and take-up.

The steel material permits sufficient springness of the flanges to eliminate the permanent set so prevalent in reels of softer material. This allows a maximum amount of hard usage without their getting out of shape.

PHILLIPS 16MM DEVELOPING RACKS IDEAL FOR HOME PROCESSING

Personal movie enthusiasts who do their own processing, developing or make their own titles will be interested in the Phillips Developing Rack. These are made in two sizes, model A and B, with a capacity of 100 feet of 16mm film. Model C for 22 feet. These racks are so constructed as to go into a very small developing tray considering the amount of film that may be developed on them, thus economizing on amount of developer and other equipment required. Being constructed entirely of Monel Metal, they are not affected by any of the solutions used to process films.

A stand for holding the racks to wind the film on or off, and complete instructions are provided. They also furnish a fine grain developing formula. Further details may be obtained by writing the Phillips Laboratory, 653 Hillcrest Ave., Westfield, N. J.

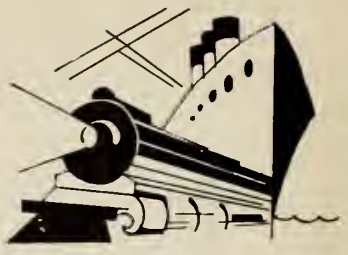
Too many people are expecting nothing but aces in the new deal. —*Tacoma Ledger.*

MENTION PERSONAL MOVIES WHEN YOU ANSWER ADVERTISEMENTS.

Classified Advertising

3 CENTS A WORD

Advertisements in this section 3 cents per word, each insertion, payable in advance. To be inserted under proper classification in the November issue, copy should reach us not later than Oct. 15. Count address, initials and numbers as words. All ads set in uniform style as below. PERSONAL MOVIES, Sippo Lake, Canton, Ohio.



FOR SALE

OVER $550 HIGH CLASS EQUIPMENT for $325. Cine-Kodak K, f:1.9; f:4.5 Telephoto. Filters for both. Kodacolor and Neutral Density Assembly. Filmo Projector, 57-G, regular and Kodacolor equipment. Steinheil f:2.9 Miniature camera, Ramstein Optochrome Filters. Foth-Derby Miniature Enlarger. Excellent condition, like new. Cash only. No trades. No separate items sold. DR. J. G. F. HOLSTON, 620 South Street, Zanesville, Ohio.

FOR SALE OR TRADE — CASH OR TERMS—Model 6-G-A Victor Animatophone 16mm outfit, complete. Model B Cine-Kodak f:6.5. Model C Kodak Projector with case. 4x5 R. B. Graflex B&L f:8. Victor Two Button Microphone. 2-C Pocket Kodak f:7.9. DeVry 3 in. Projection Lens. Will pay cash for your used equipment. — NATIONAL ENTERTAINMENT SERVICE, Langhorne, Penna.

BRAND NEW 16MM STEWART-WARNER $49.50 Movie Cameras for $24.75 on easy terms. Also regular $87.50 Victor Cameras for $49.50. Only one-half down and balance in small monthly payments. Cash prices and other movie bargains on request.—D. F. ELDER & COMPANY, Dept. 502, Chelsea, Mass.

BARGAINS IN USED EQUIPMENT of all kinds. We have a great number of still cameras of all kinds and sizes which we will dispose of during this month at almost give-away prices. Send for bargain list. Also we can save you money on reliable used movie equipment — projectors — cameras — tripods — films — screens, etc. Let us know what you are looking for. We can save you money.—THE CAMERA SHOP, INC., 531 Market N., Canton, Ohio.

MOTION PICTURE CAMERAS, PROJECTORS, films, accessories, etc., bought, sold and exchanged. Trade in your old equipment for some of the new and modern equipment now being offered. In addition to movie and still equipment we accept a great many other useful articles in exchange for new or used equipment selected from our lists. If you don't want to trade we will pay cash for good used equipment or quote you a special cash price for what you want to buy. Send a list of what you have and state what you want. Our lists will be mailed free. PEERLESS TRADING CO., Dept. PM—2, P. O. Box 2089, Atlanta, Georgia.

YOUR ADVERTISEMENT HERE WILL only cost Three Cents a word. If you have movie or photographic equipment to sell, a small ad like this will find you a buyer. Count each word and name and address. PERSONAL MOVIES, Sippo Lake, Canton, Ohio.

PROFESSIONAL QUALITY TITLES made for three 400 foot reels $12.00. Beautiful main title with fades and lap dissolves and all titles necessary to tell the story, regardless of number used. Details and samples free. 250 watt Kodascope A Projector, used as demonsrtator for 20 reels. Perfect condition; complete with case, Kodacolor lens and Home-Talkie unit, $125.00. New Willo exposure meters $5.00. New Home-Movie Projectors $7.50. Used Pathex motor camera $10.00. 500 assorted white metal letters for making titles $12.00, cost $25.00. Cameras, projectors, supplies at a great saving. Get our price before buying.—AMATEUR-ART STUDIOS, 609 East Main Street, Richmond, Kentucky.

MENTION PERSONAL MOVIES WHEN YOU ANSWER AN ADVERTISEMENT.

FILM

BARGAINS — OVER 100 ODD 16MM Travel, Educational and Teaching films—400 feet $2.50; 100 feet $1.00. No lists—will send the best. Projectors, cameras, suplies, art films. List free.—CINE FILMS, Box 2133, Patterson, N. J.

16-MILLIMETER FILMS —LIST FREE. Passion Play, scenics, comedies; other subjects, new prints. Also 35mm films and theatrical equipment of all kinds. Let us know your wants. —PECKER FILM SERVICE, 31 Church St., Boston, Mass.

LARGE STOCK OF 16MM LIBRARY Films of selected subjects of quality, in fine condition for sale at 20 per cent to 75 per cent discount from the Maker's lists. Also exchange films for desirable subjects of quality.—J. B. HADAWAY, Swampscott, Mass.

400 FOOT REELS LIBRARY SUBJECTS in good conditlon which will make a valuable addition to your home movie library. Your choice $12.00 per 400 ft. reel. THE CAMERA SHOP, 531 Market N. Canton, O.

"THE WORLD'S GREATEST PASSION PLAY" depicting entire story of the Life of Christ. This crowning achievement is more elaborate than the Oberammergau stage play. Complete story 5 reels. (New) 16 mm. Religious soul-stirring! Rent or purchase, and others. Write—HEMENWAY, FILM CO., 37 Church St., Boston, Massachusetts.

ARE YOU TIRED OF YOUR FILMS?—Do you want to sell them or trade for new ones? Your advertisement under this heading will only cost three cents a word. Send that classified advertisement today. PERSONAL MOVIES, Sippo Lake, Canton, O.

SWAP OR EXCHANGE

TARGET PISTOLS, SHOTGUNS, RIFLES and other good firearms accepted in trade toward any photographic equipment, motion picture or "still." We are authorized Eastman, Bell & Howell, Stewart Warner, Victor, Leitz, Graflex, and Zeiss dealers. NATIONAL CAMERA EXCHANGE, 5 South Fifth Street, Minneapolis, Minn.

EXCHANGE YOUR USED OR OLD CAMeras, Projectors, Films, etc., for new or other used equipment. We buy, sell and exchange all kinds of movie equipment. Send a stamp for my big exchange list. State what you have and want.—PEERLESS TRADING CO., Dept. P. M. 3, P. O. Box 2089, Atlanta, Ga.

WANTED

WANTED MEMOSCOPE OF OTHER Projector for single frame 35mm strip film. Will pay cash or trade movie equipment. State condition and lowest cash price.—PHOTO TRADE MART, Box 524, Canton, Ohio.

WE PAY CASH FOR YOUR GRAFLEX or used movie equipment. Send description for best price. CAMERA SHOP, 531 Market N., Canton, Ohio.

INSTRUCTION

LEARN THE MOTION PICTURE THEATRE Business. Approved home-study training. Send for free catalog. — THEATRE MANAGERS INSTITUTE, 325 Washington Street, Elmira, New York.

THE NEW LEICA DATA BOOK, by Karl A. Barleben, Jr., contains scores of valuable tables and many formulas for use in developing miniature camera films, printing, enlarging, microscopic photography, etc. A handy pocket volume which you will want as a constant companion. Price 50c per copy, postpaid.—FOMO PUBLISHING COMPANY, Sippo Lake, Canton, Ohio.

MISCELLANEOUS

PILOT ENGRAVING POWDER. WHEN mixed with water, will engrave names, dates, designs on anything that you wish on tools, guns, dog collars, badges, name plates, golf clubs, automobiles, etc. Simple to apply and use, only mix with 1 oz. of water, then use wire hair pin. Price, 25c (coin) per pkg. PILOT SPECIALTIES, 903 Camp St., New Orleans, La.

LEARN TO PLAY CHECKERS. Instruction book and copy of our magazine for 25c. CHECKER BULLETIN, Dept. P. M., 631 Elkhart St., Gary, Ind.

INDIAN RELICS FOR SALE. LIST FREE GRUTZMACHER, Mukwonago, Wisconsin.

START A STAMP COLLECTION—STAMP collecting outfit free! Album with spaces for 4,000 stamps, 1,500 illustrations, Standard Guide To Stamp Collection, 100 stamp hinges, 150 Postage stamps, all countries, and Perforation Guage; all above given with our stamp magazine three year for $1.00. HOBBIES-FOR-PROFIT, Box 58, Warm Springs, Georgia.

FINISHING AND ENLARGING

LEICA AND MEMO POSITIVE FILM hand colored at 2c per frame. Lantern slides also hand colored at reasonable prices. Snapshots hand colored at 5c each. Enlargements hand colored at 25c each.—EVELYN HARRIS, Sreve, Ohio.

PHOTOS — PHOTOS. 100 for $1. STAMP size, gummed, perforated. Beautiful clear photos made of your sweetheart, boy friend, darling baby etc. Send your best snapshot and $1. —H. NIENHAUS, Photo Service, 2536 Race Street, Denver, Colo.

PERFECT COPIES MADE FROM ANY size Photo or Snapshot. You need good photos to send friends, relatives, correspondents or prospective employer. Original returned safe. Prompt service and satisfaction guaranteed, or your money back. 25 photos 98 cents. 50 for $1.40. Glossy-tone photos, size about 2x3. Sure to please you. Order now. WATSON STUDIO SERVICE, Deep Gap, N. C.

FOR REAL KODAK FINISHING AND Enlarging, send your next roll of film to me. Prompt work and prices that please.—WALTZ, The Camera Man, Canton, Ohio.

WILLOUGHBYS'
ANNUAL SALE
OF USED 16MM EQUIPMENT

Here is your opportuninty to purchase a Genuine Bargain. You buy it with our usual guarantee---try it for 10 days---and if you are not entirely satisfied, we will refund your money.

CAMERAS

Victor model 3, with 1″ f:1.9 Dallmeyer lens .. $42.50
Risdon model A camera with f:3.5 B & L lens .. 12.00
Cine-Kodak model M, f:3.5 Kodak lens with case . 29.50
Zeiss Kinamo S 10 with f:2.7 Zeiss lens and case 22.50
Keystone model A with f:3.5 lens and case 15.00
Stewart-Warner camera with f:3.5 lens & zipper cas 14.75
Ensign Super Kinecam turret front, with 1″ f:2.8 Cinar and 3¾″ Wollensak telephoto & case 115.00
De Vry model 57 f:3.5 Graf lens $17.50
Filmo model 70 A, with f:3.5 Cooke lens & case 55.00
Q. R. S. model B camera with f:3.5 lens 9.50
Filmo model 70 D, black, with f:3.5 Cooke lens B case 157.50
Ensign Auto Kinecam f:2.8 Cinar lens and case .. 45.00
Cine-Kodak model B, f:1.9 Kodak lens and case .. 60.00
Filmo model 75, with f:3.5 Cooke lens and case .. 45.00
Filmo model 70 E with 1″ f:1.8 Cooke lens & case 120.00

PROJECTORS

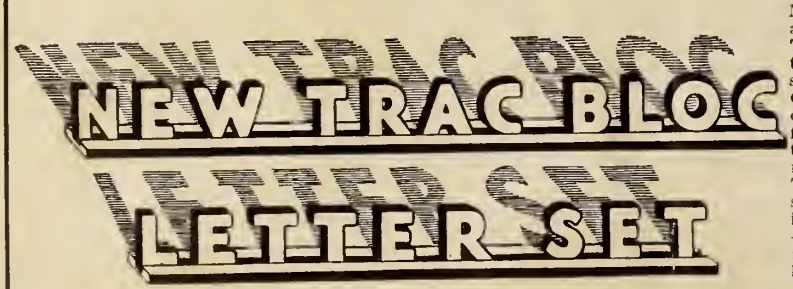
Filmo model 57 G, 250 watt bulb, variable resistance and ammeter $80.00
Cine 8 Kodascope model 20, universal and case .. 14.00
Filmo model 57 G, 200 watt bulb, round base .. 55.00
Keystone model A-74, 300 watt bulb 32.00
Motioscope motor driven, 50 watt bulb 12.50
Filmo model JL, 400 watt bulb and case, new .. $200.00
Ampro model AS, 400 watt bulb 100.00
Cine 8 Kodascope, model 60, AC current only .. 50.00
Filmo model 57 NB. 400 watt bulb 100.00
Victor model 10 FH, 500 watt bulb with case .. 115.00

LENSES

20MM. Graf. lens f:3.5 fixed mount $7.50
¾″ Hugo Meyer Plasmat f:1.5 foc. mount 30.00
20MM. Dallmeyer lens, f:3.5, fixed mount 12.50
1″ Schneider Xenar lens f:2, foc.. mount 15.00
1″ Cooke lens, f:1.5 in foc. mount 27.50
1″ Dallmeyer lens f:1.9 foc. mount 20.00
1″ Meyer lens, Trioplan f:2.9 foc. mount 17.50
35MM. Carl Zeiss Tessar f:3.5 foc mount 8.50
2″ Wollensak lens f:1.5 foc. mount $27.00
3¼″ Wollensak Telephoto lens, f:3.3 foc. mount 27.50
3″ Meyer Tele-Megor f:4, foc. mount 37.50
4¾″ Carl Zeiss Tele Tessar f:6.3, foc. mount .. 22.50
4″ Meyer Tele-Megor f:4, foc. mount 42.50
6″ Wollensak Tepehoto f:4.5 foc. mount 25.00
6″ Dallmeyer Telephoto f:4.5, foc. mount 25.00

ACCESSORIES

400 ft. 16mm. De Vry reel and can ..... $ .95
Hugo Meyer correctoscope for filmo 9.00
Kodascope rapid rewind and splicer 7.50
Book "How to Make Your Own Motion Picture Plays" ..... .50
"W" Title Board with 200 celluloid letters 5.50
Filmo Alignment Guage 12.00
B & H Photometer and Case 9.00
Thalhammer Jr. Tripod 17.00
M. S. H. Sunshade and Matte Box 3.00
Dist Meter for measuring distance 3.50
1″ Projection lens for Kodascope model B 5.00
Rhamstein Exposure Meter with case $11.00
Cine-Kodak Overhead Finder 2.50
30 x 40 Willo Blue Beaded Screen, collapsible model 9.00
35mm Steinman Printer 50.00
18 x 24 Bub North Metal Silver Surface Screen .. 10.00
11 x 14 Marshalloptic Glass Screen on stand for rear projection 22.50
Willo 16mm. 400 ft. reel, each ..... .39
B & H Sewah Titling Outfit 10.00
B & H Combination Rewinder and Splicer 8.00
No. 2 F Willo Double Reflector on stand for 2 photo flood or flash bulbs 4.95



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110 West 32nd St., New York
"At the Sign of the Camera"

PERSONAL MOVIES

10c

November 1933

Personal Movies

CONTENTS

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TO SHOW YOUR PERSONAL MOVIES TO BEST ADVANTAGE

★

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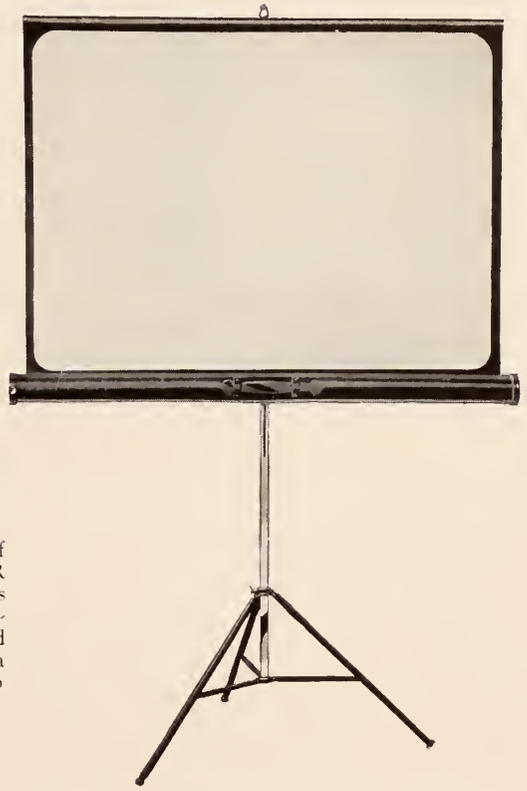
The CHALLENGER

Above is shown one of the CHALLENGER models as it appears when folded into a compact, light, easily carried unit. At the right is a CHALLENGER set up ready for projection.



DA-LITE CHALLENGER models provide ideal screens for home, school or business use. These screens have greater utility because they are of the self-supporting tripod type, they require no table, can be placed anywhere in a room, and are readily adjustable. The highly reflective screen surface is kept in perfect alignment when erected, assuring a smooth, wrinkle-free projection surface that brings out the best in any picture. CHALLENGER models are beautifully finished. In a wide range of sizes from 30″ x 40″ to 70″ x 94″ at attractive prices.

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The Cine Analyst

by George W. Hesse

"THUNDER OVER MEXICO"

Directed by Sergei M. Eisenstein and photographed by Edward Tisse.

For almost two years the famous Soviet director, Sergei M. Eisenstein, producer of "Potemkin" and "Ten Days That Shook the World," labored in colorful Mexico producing "Que Viva Mexico," released as "Thunder Over Mexico.") In that time he photographed no less than 285,000 feet of film, a monumental footage even in the long gone super-colossal days of Hollywood. This bewildering mass of negative had to be edited down to a mere 7,000 feet so that the picture could be exhibited at one performance. Unfortunately Eisenstein could not attend to this final editing of the film as he was barred from re-entering the United States. Hence, the picture as it stands, is not characteristic of Eisenstein at his best. It is absurd, however, for people to maintain that Eisenstein's work has been butchered as he could never have edited it properly in the first place: besides which Upton Sinclair, co-producer, declared that the picture followed Eisenstein's own scenario, and that it had merely been edited down so that the scenes selected were in proper proportion for practicable footage.

Probably the one outstanding feature of the picture is the really beautiful photography for which E. Tisse deserves one of Mr. Winchell's orchids. The photography is spectacular for its handling of extremes of light and shade. Shadows are always luminous and full of details as contrasted to the brilliant highlights; the overall effect making for crisp, sparkling scenes. Filters were generously used throughout and if, at times, the various scenes of any one sequence fail to accurately match in filtering it is undoubtedly because of the colossal amount of film which had been expended in making the picture. The photography succeeds in conveying the suggestion that Mexico is a land drenched in sumshine.

As a feat of direction, "Thunder Over Mexico" is eloquent evidence of Eisenstein's skill, imagination and artistry. His work must have been exceedingly difficult, for the picture was made with a native cast exclusively, scarcely any of whom had theatrical experience of any sort. The story is essentially a simple one, though it is prefaced with views of ancient Aztec and Mayan ruins and is concluded with a sort of epilogue emblematic of Mexico as she is today. Thus is is supposedly more than a mere photoplay, being avowedly a "saga of a people." Whether it actually succeeds in being that and whether it *is* Eisenstein's picture will undoubtedly be a subject for much partisan dispute for months to come.

In order to graphically portray the direct descent of the modern Mexicans from the Aztecs and the Mayans a novel and thoroughly effective directorial device is employed. Reduced to its elements it is absurdly simple, which probably makes for its effectiveness. It simply consists of photographing the profiles of both ancient stone carvings and of present day Mexicans in closeup and so that both heads are of the same size for easy and exact comparison. Seeing them one cannot doubt that in Mexico there are living remnants of these once great civilizations. At times it almost appears as if the living persons were used as models from which the stone carvings were made.

In point of fact, probably all the directorial devices employed throughout the picture are simple; simple in that they are free from all evidence of pretentious artistry. Take, for example, the sequence introducing the manhunt. The title itself, as with all the titles in the picture, was super-imposed upon an introductory scene. In this case it was a flight of stairs with a close-up of the tightly trousered legs of a Mexican caballera. The scene was so arranged, with one foot on a higher step and the entire body leaning slightly forward, that the very air seems pregnant with anticipatory menace. Too, there is the close-up of a single foot with the hands of a servant attaching the cruelly rowelled spurs so beloved of Mexican horsemen. The scene is so simple that the eyes automatically focus on the spurs and the grim earnestness in which the hunt is to be carried on is driven home with unmistakable force.

The picture is entirely silent with a synchronized musical score and thus it is an excellent example of the technique employed for a silent picture insofar as title writing and production are concerned. As mentioned previously, all titles are superimposed on actual scenes. This is more easily done by the professional because of the negative and positive system and the use of optical printers than by the amateur. For amateur purposes it is probably better to make use of a static background rather than an animated one. A print of the background to be used can be made rather dark the size of a title card. On this the white lettering can be put in or the lettering can be done on clear celluloid which is then placed over the scene, the whole thing then being photographed. It is recommended to make the print rather dark (by overprinting and underdeveloping) so that the white letters will stand out in good contrast.

The climax of the film is the sequence depicting the "punishment of the horses" in which the peons are buried shoulder deep and a band of horsemen dash wildly back and forth over the helpless men, killing them under the pounding hoofs. Such scenes as these are ideally suited to the motion picture camera and the suspense and terror of the helpless prisoners are well shown. In contrast to some previous scenes in the picture, which almost seemed to be nothing but a series of exquisite stills, this sequence shows the motion picture camera employed at its best, and handled by an expert. Study it if you would know how to build up dramatic, terrifying suspense. All the elements necessary are there, but it must be seen to be appreciated.

The entire picture, "Thunder Over Mexico," is worthy of the most deep concentration and study on the part of every earnest student of things cinematic.

(*Continued on page* 285)

The Close-up

by Erik G. von Ladau

One angle of the cinematic whole which has been sadly neglected by the amateur cameraman is that of the closeup. There is nothing more important to a production whether is be industrial, family, travel or photoplay, than the closeup, yet the average amateur story is told by a collection of long shots. A study of any professional picture will show a definite technique in regard to camera position which may well be followed by the novice. For example: the opening shot may be a long one showing the manifold activities of a busy fair ground, the next a medium shot will show a wheel of chance with the interested players lined at the counter, the next shot the closeup, will show the anxious faces of the hero and heroine as their fortunes rise and fall. The function of the first shot was to establish the locale or setting, the next satisfied the curosity of the audience by approaching closer and the last, the most important, introduced the principal characters of the story. Each new scene or change of scene will be handled in this fashion, the introductory shot, the approach or medium shot, the closeup. For example: when the couple leave the fair grounds a long shot will show them passing through the gate, a medium shot shows them entering a taxi, and the closeup will be of the man's face as he gives directions to the driver.

Once the locale has been firmly established in the mind of the audience it will not be necessary to revert to the long shot again unless it is used at the close of a scene to indicate the completion of a cycle. For example: an opening long shot may depict a couple strolling along a river bank, the medium shot framed by branches or the gnarled trunk of a tree shows them sitting down up on the grass, the love making or whatever business the script calls for will be handled by closeups and ultra-closeups. As they arise and continue the walk the long shot may be used to indicate to the audience that the scene is about to end.

Shifting the camera entails more work for the cinematographer because focus and diaphragm changes must be made in each new position. A visual focusing camera with a turret holding two or more lenses will remedy this difficulty, but the cine worker using standard equipment will be well advised to ascertain the distance from subject to camera with a tape measure thus insuring an accurate lens setting. Only those with long experience in the business can estimate distance correctly and guesswork to the amateur means disappointment with fuzzy out of focus pictures. A good scene can be made to sparkle with interest by a variety of camera positions and many angles will suggest themselves once a little serious thought is given the subject. Professionals are constantly exerting every effort to find novel methods of lending variety to their scenes, they shoot arches, porch railings, iron grillwork, branches of candleabrum and keyholes.

The amateur may declare, "This is all very well for those who make photoplays and serious pictures, but I just use my camera for record shots of my family and our travels." All the more reason why he should learn the simple technique of the closeup. What family record would not be enhanced by a closeup of daughter's nimble fingers as they flit over the piano keys, or sons' hands as they close purposely about the shaft of a golf club? Travel pictures can be improved immeasureably by intimate touches such as father's hands holding the roadmap, the steamship tickets or the passport books. The closeup may be made informative thus saving the insertion of an intruding title. Thus during a travel picture a medium shot of a road sign bearing the legend "Toledo" followed by a closeup of a watch would make unnecessary the banal title "We arrived in Toledo at three fifteen."

The fundamental reason that the amateur takes pictures is so that he may be able to share his pleasures with others. Consequently he should remember that the audience is not as well acquainted with the subject as he is himself and therefore everything done to clarify the picture and facilitate their ready and easy comprehension of it, will increase their enjoyment many fold. The closeup answers the question and satisfies the curosity which the long shot arouse.

He Gets Paid For It

During an intense love scene in the movies when the hero was doing his stuff, the wife nudged her husband and said:

"Why is it that you never make love to me like that?"

"Say," he replied, "do you know the salary that guy gets for doing that?"

The Technical Corner

by Augustus Wolfman

Readers of PERSONAL MOVIES *are invited to send in technical questions to this department. Please enclose a stamped self-addressed envelope. Address, Mr. Wolfman, Personal Movies, Sippo Lake, Canton, Ohio.*

Trick Titles Continued

Last month I briefly described methods of utilizing the tricks of fade-in, fade-out, reverse action and animation, in the production of trick titles. Another effect to use is double exposure. When on your filming trips various scenes will suggest themselves as suitable backgrounds for titles. Record these scenes, keeping a record of the footage indicated by the film meter both at the start and close of the scene. It is best to select scenes which will reproduce in a dark key so that white lettering will stand out against them.

On returning home take the camera to the darkroom and rewind the film. Set the meter at zero. Run off the film *with the cap over the lens* of the camera until the meter indicates the start of the scene to be used as a title background. Remove the lens cap and again expose the film upon a black title card with white lettering. Such titles will be in harmony with the rest of the film.

Lap dissolves can be utilized, but these are rather difficult to produce. This trick is a double exposure in which one scene fades-out while the other fades-in. It can be used nicely where the wording is too long to be included into one title. Two titles are made. The first is photographed and faded-out. A record is kept of the film meter reading both at the start and conclusion of the fade-out.

The camera is now taken to the dark room and the film rewound. Set the meter at zero and run off the film *with the cap over the lens* until the meter reading is the same as at the start of the fade-out. Now remove the lens cap, close down the lens diaphragm, set up your second title card, and start to fade-in the latter.

The fade-in should be timed so that it will occupy the same size strip of film as was utilized to produce the fade-out. Your records of the meter readings will serve as a guide. When completed, the fade-out of the first title and the fade-in of the second title will occur upon the same strip of film so that on the screen one title will gradually disappear, while the second slowly appears.

If the amateur possesses a camera such as the Cine-Kodak Special with its accurate film meter and its ability to run the film backwards as well as forwards, lap dissolves will be easily effected. With the usual type of amateur cine camera this trick will be found a little difficult to accomplish.

Let us turn our attention to the production of novel titles without recourse to some tricks in photography.

An effective "end" title for a film can be made in the following manner: Paint the word "End" upon a balloon. Attach its mouth to a bicycle pump by means of a small rubber hose. Partially inflate the balloon. Focus the camera upon it and place the balloon in the finder so that neither the pump nor the connecting hose will appear in the finished result. Start the camera, and keep inflating the balloon until it bursts. The word "End" will grow larger and larger and then finally everything will explode. Result —a title which shows that the end of the film has come both in wording and action.

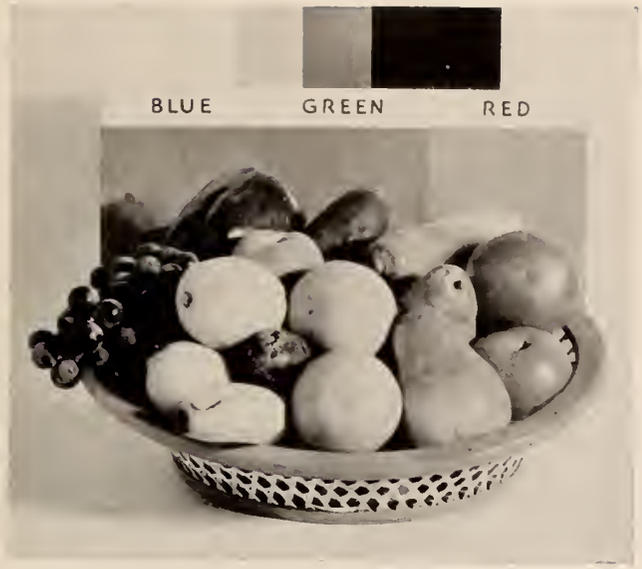
Another unusual title made without resorting to camera trickery can be effected in the following manner: Letter your title with water soluble paint upon glass. Set the glass up to include a suitable background and commence "shooting" the title. Towards the end play a water hose upon the glass so that the title will be washed away. Be careful not to get water upon the lens. This effect is suitable to introduce a "rainy" scene. These two merely serve as an example of the various effects which will suggest themselves to the filmer.

So much for titles. It now remains for the cinematographer to indulge in this fascinating aspect of amateur motion picture photography and produce titles which will make his films radiate uniqueness and individuality.

Lighting

As the winter season draws near out outdoor filming activities will be curtailed both by adverse weather, and the shortening of the day. Naturally we should expend some thought upon the matter of interior illumination. Many entertaining motion pictures can be made at home. We have greater freedom in arranging our sets, and the

The General Electric "Movieflood," big brother to the popular "Photoflood" lamp, produces approximately 68,000 lumens of light of maximum photographic effectiveness. (A lumen is the amount of light necessary to illuminate an area of one sq. ft. to an intensity of one foot-candle). Its size is the same as that of the 1000-watt lamp used in general lighting service, 6½ inches in diameter and 13⅛ inches from top to bottom. It is designed to operate on voltages from 105 to 120 inclusive, and at 115 volts has a design life of 15 hours. It has a mogul screw base, a clear glass bulb, and can be burned in any position.



No. 3 — White flame carbon arc
Reproduction of colors with supersensitive panchromatic film used with artificial illumination.

motion picture can be easily made to follow a selected story form.

If adverse weather prevents us from venturing outdoors why not set up the camera at home and "shoot" a roll or two of film. The problem of lighting confronts us. We could utilize the daylight streaming through the windows. This light has its disadvantages. First the source cannot be moved about to suit the filmer. He must arrange his set near a window. Then again the light itself is not constant, its actinic strength varies as the time of the day passes. Artificial illumination offers a much superior medium.

Both carbon arc and mazda illumination are available to the amateur. Of the latter we have the usual electric bulb and the Photoflood lamp.

Carbon arcs yield a powerful illumination. Many lighting units of this type are available amongst which are some capable of producing 20,000 candle power. With a unit of this type the camera can be placed from 8 to 10 feet from the subject when an f:3.5 lens is used. If the amateur possesses an f:1.9 objective he can increase his working distance to from 16 to 20 feet.

Two types of carbons are available, white flame carbons and panchromatic carbons. The former yield a light which is rich in blue and violet. This makes them suitable for use with the newer types of orthochromatic reversal films. Panchromatic carbons produce a light which is rich in red and yellow making them suitable for use in conjunction with panchromatic and supersensitive pan film, since these types of emulsions are quite sensitive to the red end of the spectrum.

Variation in the color of light emitted by the carbons is produced by the addition of certain substances. Thus by adding strontium and yttrium to the carbons red light is produced while by the addition of calcium flouride yellow light is produced, etc.

With the use of panchromatic carbons in conjunction with supersensitive panchromatic film greater speed is obtained since these carbons emit a light replete with red and the supersensitive pan has a great affinity for the red end of the spectrum. However white flame carbons will produce a truer rendition of colors. This is accomplished at the sacrifice of speed since the latter type of carbons produce a light markedly predominant in blue and violet.

Below are four illustrations of a basket of fruit, each taken with a different type of illumination. Supersensitive panchromatic film was used for all four. The basket contained tomatoes of a deep red color, a pepper of lighter red, pears which blended from red to yellow, a peach, oranges, bananas, lemons, a cucumber, a green pepper, a plum, and concord grapes. The weave of the basket was untinted. The rims at the top and bottom however were of a deep orange color. A chart of three standard colors was placed in back of the basket.

Illustration No. 1 taken with panchromatic carbons shows the predominance of red in this type of illumination. The red band of the color chart reproduced much lighter than the green and blue portions. Notice how light the tomatoes on the right side of the basket were rendered. The second photo was taken with the use of a combination of white flame and panchromatic carbons. The better rendering of the colors is evident.

The third illustration was made by the light of white flame carbons. The manner in which the three primary colors of light (red, green, and blue) reproduce proves that this is a very suitable type of illumination to employ with supersensitive panchromatic film when it is desired to obtain a true rendition of colors. As is evidenced by the chart in back of the basket of fruit the primary colors are all reproduced in an almost similar tone value. A better monochromatic rendition of the basket of colored fruit is also apparent.

The last photo was taken with the incandescent lamp as the source of illumination. The illustration shows that this type of illumination is also rich in red and yellow light. If true color reproduction in monotone is not necessary then

No. 4 — Incandescent tungsten filament.
Reproduction of colors with supersensitive panchromatic film used with artificial illumination.

it is advisable to use either panchromatic carbons or incandescent illumination in connection with supersensitive pan film. In this manner we take advantage of this film's great affinity for red and yellow light of which these types of illumination contain a great amount. In other words speed is increased.

Perhaps the greatest impetus to the increase of the number of films taken indoors was the Photoflood lamp. This lamp was described in the June installment of this department. As was mentioned, the great amount of light it produces is due to the fact that it is burned in a circuit of a much higher voltage than that from which the lamp is rated. The ordinary house circuit carries 115-125 volts. The Photoflood is a 64-volt lamp. When placed in a 115-125

The Standard Photoflood Bulb

volt circuit it produces an illumination equal to that of a 750-watt general service lamp.

One of the advantages of the Photoflood lamp is that every fixture in the home becomes a lighting unit for taking motion pictures. Thus Photoflood bulbs can be placed in the fixtures at home to serve for the general illumination of a set, and then some Photofloods in reflectors serve as auxiliary lights to accentuate a character. Care should be taken in placing these lamps in home fixtures, that they do not come in contact with easily inflammable materials, since a great amount of heat is produced during the operation of the Photoflood.

Best results are obtained when the Photoflood is placed in a reflector. Many types are offered to the amateur such as the Kodaflector, Northeast Twin, and the Duolite. The Northeast Twin is equipped with a novel device known as the Hi-Low switch. While the subjects are being arranged the low switch is used. The lamps will emit just enough illumination to allow the subjects to be arranged. When everything is ready to "shoot" the high switch is turned on and the lamps will yield their full brilliance. In this manner the life of the lamp is greatly lengthened.

No. 1 — Panchromatic carbon arc. Reproduction of colors with supersensitive panchromatic film used with artificial illumination.

Photoflood lamps offer to the amateur an inexpensive means of obtaining indoor movies. If expense is no object, it would be advisable for the amateur to obtain a substantial lighting unit which will accommodate a dependable long life such as the projection lamp T. 20, 500-watt. Reflectors such as the Solite are equipped to accommodate this lamp, as well as the Photoflood bulb. The amateur can use the latter in the reflector, and when funds permit he can obtain a T. 20, 500-watt projector lamp which will give him dependable artificial illumination over a long period of time.

As I have stated before incandescent illumination yields a light rich in red and yellow making it desirable to use in conjunction with normal panchromatic and supersensitive panchromatic films.

If you contemplate using a number of lighting units you will have to exercise care that the house wiring is not overloaded. Putting a load of 2500 watts on a circuit that will carry only about 1500 watts will at the least blow some of the fuses. Don't make the mistake of inserting fuses of a greater capacity than that of the house circuit. The fuses may not blow, but the wires will become dangerously overheated and fire may result. A fuse is a "safety valve." It is

No. 2 — White flame carbon uppers. Panchromatic carbon lowers. Reproduction of colors with supersensitive panchromatic film used with artificial illumination.

employed to prevent overloading with its consequental overheating of the wires and possible fire. To employ fuses of a greater capacity that that of the house circuit is to defeat the purpose of the fuse.

This brings us to another advantage of Photoflood lamps. They consume a small amount of current, therefore, a relatively large number of them can be employed without overloading the house circuit.

When you avail yourself of a number of lighting units a handy accessory to obtain or make is a junction-box. This is merely a cable with a number of outlets at one end. All the lighting units can be plugged at the same point. If you employ Photoflood bulbs the electrical load will be light. For this purpose you can obtain one of the small junction-boxes commercially made to permit the use of several percolators, or toasters at the breakfast table.

If you employ regular photographic lights utilizing 250-watt or 500-watt lamps a more substantial junction-box will be necessary. The materials to construct this can be obtained at any large electrical store. Just procure a metal junction-box cover and a number of parallel wired gang outlets. Fit it with about 25 to 50 feet of cable. The latter should preferrably be of the heavy insulated type so that it could stand a lot of abuse.

The best type of film to employ with artificial illumination is supersensitive pan. Normal panchromatic film can be employed but it will require about three times as much illumination. The smaller the amount of illumination required to obtain correct exposure, the less chance we have of running into trouble with the overloading of the house circuit. Similarly employ a speed lens if you possess one. It will also increase the latitude of your lighting equipment.

So much for the mechanical aspects of lighting. Next month we will consider the manner or arranging lighting units to successfully illuminate the set.

Extensive Visual Educational Program for Citizens' Conservation Corps

Government Places Order for 105 Animatophones

Back in November, 1932, many Americans viewed with alarm the ultra progressive tendencies of a certain Franklin Delano Roosevelt. Among other things, he had ideas on such subjects as spending the taxpayer's money to mobilize America's young manpower into an army that would conserve and rehabilitate our rapidly disappearing forests . . . that would correct and repair the damage done to our streams and our soil by the carelessness of previous generations . . . that would build roads, reduce fire hazards, and do numerous other hard-to-get-done tasks. Even countless thousands of those who voted for the "New Deal" shook their heads dubiously at the mere mention of "Reforestation."

But that was "way back when." In the interim history has been made, and more is in the making. The Citizens' Conservation Corps (C.C.C.)—backbone of President Roosevelt's Reforestation Program—is an accomplished fact. In some 1440 conservation camps (located in every state of the Union except Delaware, which has no forest) half-nude, brown-skinned young Americans are busily engaged in the task of rejuvenating the scarred features of Mother Nature.

Most important of all, however, is not the fact that the C. C. C. is conserving our forests but, rather, that it is conserving the health and morals and minds of a large slice of the male portion of a generation that has but lately arrived at the portals of manhood. From the hotbeds of idleness and discontent, Uncle Sam has transplanted well over a quarter million of our youth into the open where hands and minds and bodies are constructively employed.

Of the money which these young men earn by their labors, about five-sixths is alloted each month to the partial support of families back home. In many instances where there is no family, or no noeed for aid, the monthly allotment has been voluntary consigned to Charity by the worker. In countless other instances the allotment received by indigent families has made it possible for them to retire from the lists of charity.

When the history of our age is completed, it is hoped that the story of the C. C. C. will stand out as a shining example of one of the greatest social and economic achievements in the history of mankind.

Criticisms, Problems and Solutions

It is only natural that a project of such magnitude as the Reforestation Program, particularly when it is related to politics, should be subject to widespread criticism. Probably some of the criticism is just. Much of it probably is not.

The administration frankly admits that it is not infallible. It does not deny that it has fallen short of perfection. Its program, however, is constructive and for most of its ills it seems to have what appear to be potent remedies.

Working efficiency has perhaps constituted one of the greatest problems at the C. C. Camps. Considereing that the reforestation army was recruited from all walks of life, it is not surprising that it should take somewhat slowly to a task that must undoubtedly be 99 per cent new to it. On the other hand, of those who have visited C. C. Camps (many, no doubt, seeking material for criticism), the majority appear to agree that the result is something of which the administration has just cause to be proud . . . and in spite of the fact that the average peak of working efficiency so far attained is only about 50 per cent. The Department of Forestry has definitely shown that this deficit in efficiency can only be corrected by teaching the reforestation army the things it does not now know about forestry, soil erosion, fire prevention, road building, etc.

Obviously, the more quickly and effectively this process of education can be completed, the more quickly will the desired efficiency be attained and the greater will be the value of the C. C. C. to the nation as a whole.

Teaching Film Offers Solution

Bear in mind, in this connection, that the Forest Service of the Department of Agriculture is manned by experts of many years training and experience. Creation of the C. C. C. found the Department fully prepared with definite plans to meet the emergency.

It is understood that one of the first recommendations of the Service was that Department of Agriculture's fifty or sixty forestry and agricultural films be utilized in properly training C. C. C. for its work. Opposition is said to have at first been encountered among certain officials who apparently were not familiar with the potent qualities of the motion picture as a teaching and training medium.

The Department of Agriculture, however, is a pioneer user of educational films and, as such, could not easily be dissuaded from making use of what it considered to be one of its most effective and economical tools.

It is believed that the views of President Roosevelt himself had a great deal to do with the final issuance of the order to proceed with the original plan of using motion pictures to expedite the job or properly instructing the C. C. C. in conservation work.

16mm (Both Silent and Talking) To be Used Exclusively

Inasmuch as the films to be used for this purpose were already in existence, having been produced by the Department of Agriculture for previous educational projects, projection equipment offered the greatest problem in connection with actual application. Quite a number of the available films are without sound and, although sound is being recorded as rapidly as possible for

these subjects, provision had to be made for silent as well as sound projection.

It was necessary, also, that the equipment be easily portable and adaptable to a variety of operating conditions, as each projector will be constantly moved around a circuit comprised of about 14 camps.

The fact that operation and care of the equipment was to be entrusted to inexperienced camp members (to be especially selected for the responsibility) required an equipment incorporating extreme simplicity and great durability, as well as utmost efficiency.

Last, but not least, economy of cost and upkeep was a factor of major importance. The Department had a job to do and a limited appropriation with which to do it.

There was only one answer: 16mm equipment. The question was whether or not there was available an equipment that could unconditionally meet each of the several requirements.

Bids with detailed specifications were mailed. Exhaustive tests were conducted. The order was placed . . . for 100 Victor Model 12B Blimp Type Sound-on-Film Animatophones. Delivery has been practically completed.

Film Program Starts Immediately

The first 50 Animatophones for C. C. C. were ready for inspection fifteen days from the day the government's order was placed. The second fifty in fifteen days more. Individual inspection and test runs were made at Davenport by H. R. Kylie, in charge of Visual Education, Department of Agriculture (Forestry Service), Washington, D. C.

The 100 projectors have been shipped to key camps in various parts of the country, to be taken over by young men especially selected for the responsibility of their operation and care. Before taking over the equipment, the operators are required to become thoroughly familiar with the mechanism, construction, operation and care. Any operator found neglecting his equipment will be subject to immediate replacement.

Equipment and operator will be transported from camp to camp by camp trucks travelling, in line of duty, in the direction of the operator's next destination. Definite routes and definite showing schedules are followed, operators spending only one day at a time in each camp.

It is estimated that the present supply of films will, without addition of new subjects, provide for a full one year training course.

Benefit of Equipment Expenditure Far-felt

Most of us are prone to think of dollar spent as being a dollar forever gone. H. B. Kylie of the Department of Forestry, however, can prove otherwise. Mr. Kylie, because of a deep interest in economics, has made a particular study of this subject in his spare time and is at present engaged in tracing the cycle of a labor dollar.

While at Davenport, Mr. Kylie applied his findings directly to the government's expenditure for Animatophones and showed how each dollar instead of being merely a dollar, untimately acquires ten times that value through the process of pyramiding employment and purchasing power.

For instance, as a result of the order placed with Victor, additional employment is not only provided for Victor employees but also for employees in other plants that produce raw materials such as steel, aluminum, glass paints, oil, etc. In other words, every Victor labor-dollar is matched perhaps ten times in other places. The men who earn those dollars spend them and, in turn, provide employment for food packers, garment makers, leather workers, clerks, and so on, almost without end . . . each turnover of the labor dollar representing a further step toward complete national recovery.

Thinking along these lines brings us to a consideration of the Administration's three billion dollar public works appropriation. Many of us have been inclined to think of this sum as being only "a drop in the bucket" compared to what is needed to restore prosperity. In following Mr. Kylie's trend of thought, however, we find this three billion growing into thirty billion dollars or more . . . growing and growing like a snow ball rolling down hill . . . providing more and more employment and generating more purchasing power. In any event, it certainly is not as insignificant as we may have at first believed. And, of course, the original three billions ultimately finds its way back to the U. S. treasury in the form of taxes that the circulation started by the three billion dollars will make it possible for us to pay.

News of the Visual Instruction Field

by H. L. Kooser
(In charge of Visual Instruction Iowa State College)

Inquiries concerning Visual Education will be gladly answered by Mr. Kooser. Send stamped, self-addressed envelope with your questions to Mr. H. L. Kooser, PERSONAL MOVIES, *Sippo Lake, Canton, Ohio.*

Summer Meeting Highly Successful—Department of Visual Education—National Education Association

The summer meeting of the Department of Visual Instruction, which was held at the Congress Hotel, Chicago, on July 5 and 6, was considered by many to be the most successful in the history of the organization. The program had been well planned, and was presented according to schedule; and the attendance reached a new high total. It was estimated that more than eight hundred attended one or more sessions. Those who attended were teachers, school executives, visual instruction directors, and representatives or producers and manufacturers of visual instruction materials and equipment, gathered there from all parts of the United States.

The first session was a luncheon meeting at noon on Wednesday, July 5. At this meeting, the principal topic of discussion was the responsibility of teacher preparation institutions for visual-sensory aids course, from the standpoints of a teacher and of a teachers' college president. The responsibility of the teachers' college for this type of training was presented ably by Dr. Albert Lindsay Rowland, President of the State Teachers College at Shippensburg, Pennsylvania. One would not need to listen long to Dr. Rowland to discover why Pennsylvania requires training in the use of visual-sensory aids for certification.

The attitude of the teacher toward adequate teacher-training for the use of visual sensory aids was presented by Miss Elda Merton, Assistant Superintendent of Schools at Waukesha, Wisconsin. Although Miss Merton is now on the administrative staff of a well-organized school system, she has been known for years as one of the most effective classroom teachers in the field.

The afternoon meeting, which convened at two o'clock on Wednesday, was considered by many teachers present to be the most helpful to the average teacher in the average school situation. The discussions centered around objects, specimens, models, charts, and other visual aids which could be assembled for school use at very little or no cost. Mrs. Grace Fisher Ramsey, of the American Museum of Natural History, brought from New York a very complete assortment of materials for nature study and general science classes. This was followed with a demonstration lecture by Mr. Wilber Emmert, Director of Visual Education and Science, State Teachers College, Indiana, Pennsylvania. Mr. Emmert's discussion concerned materials which might be assembled for use in junior-senior high

school science, and an exhibit of articles including almost everything from a piece of garden hose to a dentist's form for preparing bridge and plate construction. The discussion and exhibit indicated clearly that the teacher of general science who is not able to present the subject with pertinent illustrative materials must surely be in the clutches of that terrible disease, laziness.

Dr. Frank N. Freeman, Professor of Educational Psychology at the University of Chicago, gave a brief resume of the recent scientific experiments in the field of visual instruction, calling attention to those which have been inclusive enough to give reliable indications of the potential value of visual-sensory aids, properly applied. This was followed by an open discussion of the problems of visual instruction and its value during periods of economic stress.

The third meeting was another luncheon, convening at noon on Thursday. Dr. C. F. Hoban, retiring President of the Department of Visual Instruction, presented a symposium on visual-sensory aids and the economic situation from the standpoint of producers of visual-sensory materials and equipment. Many special and sound reasons for the increased use of visual-sensory aids during this period were emphasized by the producers who reported. The entire discussion gave a rather clear indication of the unsung praises which should be due the individuals and organizations responsible for the production of effective visual aids in the face of almost certain economic loss. It was pointed out quite clearly that many schools, through the intelligent application of effective teaching devices, could accomplish more with even less expense than heretofore.

This report was followed by a discussion of the situation from the standpoint of supervisory officials. This discussion was presented by Dr. A. J. Stoddard, Superintendent of the Providence, Rhode Island, city schools. It was concerned chiefly with the results of the recent experimental use of sound pictures in the Providence schools. Dr. Stoddard was enthusiastic in his praise of the sound motion pictures as an economical aid to the school or school system which is confronted with the problem of meeting an increased educational load with a decreased budget.

The high spot in the program, from the standpoint of interest and attendance, was a demonstration of radio vision by Miss S. Naomi Anderson, Field Supervisvor of Visual Education in the Chicago City Schools. A sixth grade class in geography was brought before the group assembled and given a lesson in the geography of the U. S. S. R. with the aid of carefully selected glass slides and a discussion presented by radio. The discussion was broadcast through Station WMAQ and was presented by Dr. William D. Johnson, Principal of Volta School, Chicago.

During the luncheon program preceeding the demonstration of radio vision, two of the sixth grade boys came to the lobby of the Congress Hotel to wait for the proper time to participate. While they were waiting and seemed to be more or less restless, one was asked if he were trying to

find the radio lesson. His answer left no doubt as to the purpose he had in mind. It was, "No, sir. I'm looking for the geography lesson." His reply was a very clear indication of the way in which visual-sensory aids have been fitted into the work of the Chicago schools as a regular part of the class procedure, rather than as a novelty or in an unnatural situation.

Following the radio-vision demonstration, papers were presented which outlined the most effective methods of relating visual-sensory aids to the curriculum, in geography, history, reading, elementary science, and junior-senior high school science. The discussions were led by C. C. Barnes, of the Detroit Public Schools; Miss Mabel D. Vernon, University of Hawaii; Mrs. Mildred Smith, Principal of the Elementary Schools, Detroit; and Dr. John A. Hollinger, Director of Science and Visual Education, Pittsburgh City Schools.

The final meeting of the Department was the business session, which gave brief consideration to the usual business of the Department and elected officers for the academic year of 1933-34. Mrs. Grace Fisher Ramsey, Associate Curator of the American Museum of Natural History, New York City, was elected President.

The other officers elected were the folowing:

First Vice President, C. F. Hoban, Director of Museums and Visual Instruction, State Department of Education, Harrisburg, Pa.

Second Vice President, Rupert Peters, Director of Visual Instruction, Kansas City Public Schools, Kansas City, Missouri.

Member of Executive Committee, Robert Collier, Jr., Director of Visual Instruction, South High School, Denver, Colorado.

At the close of the meeting, the Executive Committee met and appointed as Secretary-Treasurer, Ellsworth C. Dent, Bureau of Visual Instruction University of Kansas, Lawrence.

Educational Motion Pictures in Foreign Countries

Chile

The Chilean Government has issued orders for putting into effect the law obliging the proprietors of public cine-

mas to project every week a certain number of educational films. The regulations state textually:—"We are firmly decided to maintain the educational function of the cinema, and therefore we invite foreign producers and local exhibitors to observe the regulations laid down for furthering the government's policy in the matter. According to this policy, normal cinema programs must contain a certain number of films dealing with propaganda." —*International Review of Education Cinematography.*

New Film on Photo-Engraving

The Calvin Company of Kansas City, Missouri, are soon to release their new motion picture entitled "The Art of the Printed Picture." This film, one reel in length, is an exposition of the photo-engraving process, showing the steps whereby a photograph or a drawing is made into a relief plate so that it may be printed with type. The film has been prepared especially for journalism students and those interested in advertising and book production.

Book on Children and Motion Pictures

The first of the books descriptive of the scientific findings of the Motion Picture Research Council has just been published by the MacMillan Co. This book is the work of Samuel Renshaw and associates and is entitled "Children's Sleep." The book deals with research in the effect of motion pictures on the sleep of children.

Suggestions on a School Visual Aids Program

The Glass Lantern Slide

(*This is the second article in the series "Suggestions on a School Visual Aids Program." A preliminary discussion of this subject was included in this column several months ago.*)

The glass lantern slide has a distinct place in the educational process. There are many outstanding characteristics. The lantern slide, when used in a good stereopticon, will give a splendid picture even under adverse conditions.

All lantern slides used in this country are a standard size, 3¼ x 4 inches. Allowing a small space for a mat there is an effective picture area of perhaps 2¾ x 3 inches. The emulsion on a lantern slide plate is of very fine grain and the picture may, therefore, be projected to a large size without noticeable decrease in the photographic value of the picture. It is also possible to hold the projected picture on the screen as long as desired. This aids in study and discussion.

The lantern slide may be colored and many beautiful slides are available on most every subject. Many organizations have made a specialty in the production of fine lantern slides and these collections are noted for the fine, natural coloring of the slides.

Libraries of slides for loan have been developed throughout the country so that material is available from many sources.

There has been developing for some time a trend toward the production of certain types of lantern slides in the classroom by the use of plain and etched glass, colored inks and pencils, cellophane, and similar materials. These methods offer opportunities for teachers to provide comparatively inexpensive lantern slides for class work, and it gives the pupils opportunity to exercise their handicraft. Many teachers also have lantern slides made from

their own photographic negatives for use in the classroom.

The Film Slide

The film slide or film strip consists of a series of still pictures, such as might be used for lantern slides, printed on 35mm standard width, non-inflammable motion picture film.

This provides a very compact form of material for visual presentation. 16 pictures may be placed on one foot of film. An entire lecture may thus be combined into a small roll and placed in a container approximately 1½ in. long and 1½ in. in diameter.

The picture on the film is only 1 in. x ¾ in. in size. Therefore, it should not be expected to enlarge the film slide picture to extreme sizes. The use should be confined to small groups where a picture not larger than 4 ft. x 6 ft. in size will serve, when projected in a very dark room. If possible, a smaller picture should be projected. Film slides are ideal for use in the classroom that may be well darkened.

The production of film slides is quite inexpensive and subjects may be purchased at a low price compared to lantern slides. These prices vary, depending upon several factors. The average commercial price is perhaps equal to the cost of two or three good glass lantern slides.

Film slides are not easily broken. It is necessary, however, to watch them very carefully and not leave them exposed to the air for long periods. This causes the film to become dry and brittle.

One objection to the film slide, that has been advanced, is the fact that it is necessary to follow the same order of pictures always, and that such a series of illustrations is not as flexible as a set of lantern slides, when it is possible to rearrange the slides, make replacements, and remove slides at will. This perhaps is a legitimate objection. The low price of film slides, however, tends to balance this objection.

Film slides, due to the small size of the picture, are not easily colored. Some hand coloring is done, but this must be handled under a magnifying glass.

The Still Film

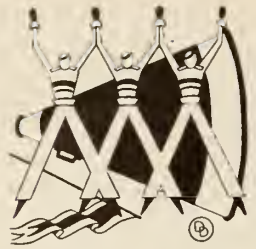
The Still Film is quite similar to the film slide except that the pictures are approximately lantern slide size and the non-inflammable film stock is much heavier.

Opaque Material

The projection of opaque material such as photographs, post cards, mounted prints, etc., offers an inexpensive method of providing projected material on a screen for class use.

Because of the loss of light within the projector itself, due to the necessary reflecting process, this form of projection has certain limitations. It is necessary to have a very dark room. The projector must be much closer to the screen than other types of projectors. However, some of the very expensive opaque projectors are equipped for longer distance projection.

Copy used in an opaque projector is reproduced on the screen in actual colors. This, of course, is extremely valuable.

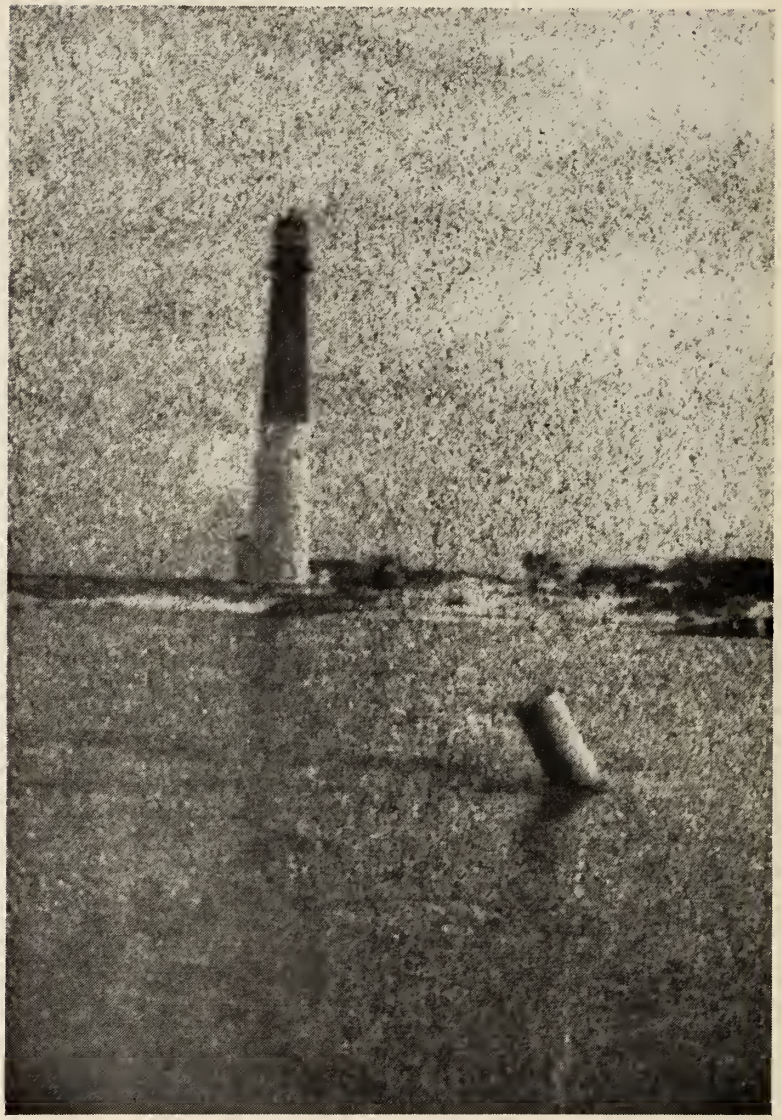


Miniature Cameras and Miniature Photography

A Regular Monthly Feature

by Karl A. Barleben, Jr., F. R. P. S.

Mr. Barleben will gladly answer any questions regarding miniature camera photography. This service is open to all readers of PERSONAL MOVIES. *In writing, be certain to enclose a self-addressed and stamped envelope. Simply address Mr. Barleben,* PERSONAL MOVIES *Magazine, Sippo Lake, Canton, Ohio.*



Example of Parchment Paper placed in contact with Negative
Photo by Joseph J. Steinmetz

Printing Tricks

Projection printing (enlarging) is today recognized as a standard method of producing positive prints on paper. In general, this process is used almost exclusively in miniature camera work because the tiny contact prints have but a limited use and appeal. It should be known, however, that there is far more to making enlargements than simply reproducing the print on paper in enlarged size by means of an optical system known as an enlarger. There are many variations, many tricks, which, if used properly, can add tremendously to the final result.

Let us take, for example, a miniature negative of say an architectural subject. Due to the angle at which the camera has to be held to include the entire building in the field, the lines are not exactly perpendicular; they slope towards the top of the picture. This is known as distortion, and is not a fault of the lens, but the angle at which the picture was taken. A negative of this nature might be considered fit only for the waste-basket unless a very elementary trick is known—that of *tilting the easel or paper holder* of the enlarger to correct the distortion on the negative. The trick is so well-known I hesitate to mention it, but it is of great importance as can be seen, for it corrects faulty perspective in a negative and produces a perfect print.

It is easy to do this. Merely project the negative image upon the easel or paper holder. Then tilt the easel until the lines became straight and true. A book, magazine, pencil, or any other object can be wedged under the easel to assure its remaining in position. There are special blocks available which resemble a flight of stairs. These are of metal, and permit the easel to be tilted at any usable angle.

This trick is a valuable one to remember, for it has a real use, especially when working from negatives made with a camera that is not equipped with a rising and falling front.

Special effects are easily possible with the enlarger. There is the special plate which produces an effect closely resembling an etching, for example. These plates are quite popular, for there is no denying that the enlargements made through them are beauties, which at first glance look exactly like etchings. In miniature work, these plates serve a double purpose, for not only do they produce an unusual result, but they "kill" grain which may possibly exist in a course-grained film which was developed in a grainy formula. (Grain has today been mastered by the formulas which have, during the past year, been introduced).

Another interesting effect is one in which the enlargement is covered with a multitude of fairly large and irregu-

lar black spots. One might almost say that the effect is one of excessive grain. Yet it has its adherents, and in some cases is quite attractive. The effect is illustrated herewith, and is very simple to produce. Merely place a piece of parchment paper in contact with the negative in the enlarger and make the print. Care should be exercised to see that the parchment is not too thick and coarse, else the print will be spoiled. The trick is best used with larger negatives, but is mentioned here as a possibility for those miniature enthusiasts who like to try everything.

An effect which is more practical for miniature negatives consists of stretching a piece of muslin or similar loosely woven material over the enlarging paper, and printing through it. This effect is also illustrated here. It is useful for special subjects, and like the other tricks mentioned, should not be used exclusively.

The amateur should learn from the first that special effects are not meant to be used regularly; they are available for use in conjunction with scenes with which they work well, and to inject variety in the amateur's work. After all is said and done, a straight, grainless, well-exposed and developed enlargement on a suitable paper makes the strongest appeal for the average worker.

I shall leave with you one more trick—if such it may be called. It, too, is commonly known, but is worth mentioning for those who may not have come across it so far. It concerns itself with enlarging papers, and consists of using contact (chloride) instead of enlarging (bromide) paper. Contact is being used a great deal these days for miniature camera pictures, and with excellent results, too. It is less expensive, and may be obtained in a greater variety of emulsions than bromide paper. Of course to off-set these advantages, it is approximately four times slower than bromide paper, hence the exposures in the enlarging machine must be increased proportionately, and in doing this, there is danger of overheating the machine, to say nothing of "buckling" or warping the film. Special illuminating systems are now available which consist of tiny frosted bulbs of 100-watt power, a special condensing lens, and an adjustable rheostat which controls the intensity of the light in the bulb.

Whether contact paper should or should not be used, depends entirely upon the amateur himself. Each individual must find his own solutions in these matters, for it becomes exceedingly difficult to advise specifically when so many conditions and equipments exist among a great variety of workers.

Example of Muslin placed over Enlarging Paper. Photo by Joseph J. Steinmetz

As for a developing formula for enlarging papers, no one seems to have offered anything that to date surpasses the old reliable Eastman D-72 formula (see Leica Data Book for this formula).

Projection printing is a positive joy to work with, for it permits so many controls and effects. Contact printing is extremely limited in this respect.

(More "tricks" next month).

A Few Notes on Lenses

All too many miniature camera enthusiasts consider the lens in their camera a mere piece of glass, and because of this indifferent attitude, the camera owner is unable to to obtain the maximum results from it. Photographic lenses are extremely interesting devices, and while the amateur need not go into the deeply technical aspects of optics, he should know a few of the useful facts which will be the means of securing the best results.

Lenses as we know them are not just one piece of glass, but a combination of three or more glasses combined in the metal mount. Usually four to seven separate lenses are incorporated in a "lens." The reason for various glasses is because a single lens cannot produce the results modern photography demands. For example, a single lens possesses certain characteristics which are not desirable. Then again they do not possess sufficient speed. By combining certain types of glasses of specified curvatures, one glass overcomes the errors or faults in the other. It is a sort of compensating arrangement which works out nicely in optics. Naturally the optician who works out the formulas for these various combinations spends many weeks, often months, securing just the right combination to produce a satisfactory lens.

AH THERE— Photo by W. H. Ledsham

It can be said with all truthfulness that all of the lenses made by well-known and reputable manufacturers today are excellent, and no one need hesitate in purchasing such a lens. Of course each type and make differs from the others in formula and design, but they all produce similar results. As proof of this, try to determine, by examining one or more photographs, what lens was used to take the picture! It is impossible. The selection of a lens is largely a matter of personal preference.

Lenses are considered costly by many. When the work and quality of glass that go into the making of a lens are known, the cost no longer seems great. In fact lenses are inexpensive when thought of this way. It must also be remembered that there is really no wear and tear on a lens—passing light rays through it does not exert any wear, hence a lens will last a lifetime providing average care is accorded it. Replacement of lenses is necessary only because of accident or carelessness.

Which brings us to the care of a lens. Naturally a lens is delicate; the glasses in it are not hard like those found in ordinary window-pane glass. For this reason the lens surfaces should not be permitted to come in contact with hard substances. Aside from the glass being comparitively soft, it is highly polished, and scratches are liable to ruin this polish, resulting in poor optical characteristics. Once the polish of a lens is dulled, the lens cannot be expected to function at its maximum efficiency. Cleaning the lens involves wiping, and herein lies the danger. If pressure is exerted, it can be seen that tiny gritty particles will be rubbed into the glass, causing scratches, no matter how soft the wiping medium may be. Therefore, when the lens is quite dusty, the bulk of the dust should be gently brushed off the glass surfaces with a soft, camel-hair brush, after which a light wiping with Japanese lens cleaning tissue will remove the last traces.

The care with which this cleaning should be done cannot be treated too lightly, for upon this depends the life of the lens. The lens should be cleaned frequently, but carefully. It should not, however, be cleaned when cleaning is unnecessary. Chemicals should never be used to clean lenses, for alcohol and xylol, two chemicals most commonly used for this purpose, may possibly seep in between the metal mount and the glass surfaces. Often chemicals will dissolve the Canada balsam which is used to cement the lens elements together. When this happens, the optical properties of the lens are seriously disrupted.

A great many lenses are built into a "between-the-lens shutter", and many amateurs feel that the complicated mechanism in the shutter requires lubrication. Oiling the shutter is one of the worst things one could do. *Never oil or grease the shutter.*

In short, then, the following rules should be carefully observed:

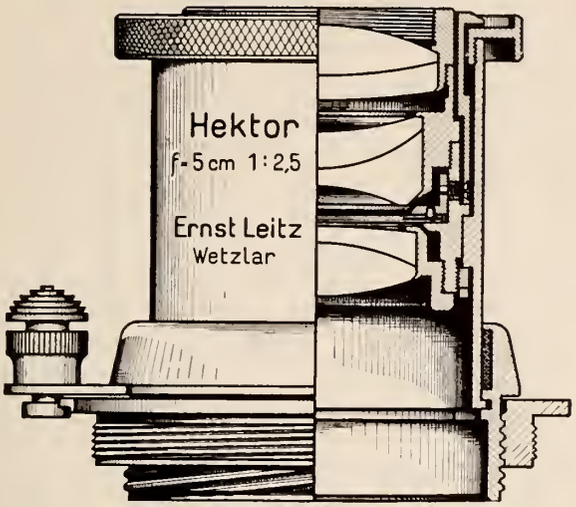
Keep the lens clean.
Keep a dust-cap on the lens when not in use.
Protect the lens from dust and dirt and knocks.
Keep the lens (unless it is permanently attached to the camera) in a special case which will protect it.
Never use chemicals to clean the lens.
Use only a camel-hair brush or Japanese lens cleaning tissue for cleaning the lens.
Keep fingers off the glass surfaces of the lens.

Lenses, if accorded care, will last a life-time, yet on the other hand they can be ruined beyond repair within a minute through carelessness or accident (such as dropping on a hard pavement).

The average miniature camera comes equipped with a lens of 50mm (2 in.) focus, working usually at f:3.5 at its maximum aperture. This lens will serve in the majority of purposes, and is considered as the all-purpose lens, for indeed practically anything can be done with it. Other lenses, such as wide-angle, speed, and telephoto lenses are desirable to have, if the camera is of the type to permit the interchange of lenses, however, the regular 50mm lens should never be entirely dispensed with.

Wide-angle lenses are lenses of shorter focus than the regular 50mm. These range from 28 to 40mm focus, and, as their name indicates, produce a wider angle than the 50mm lenses. Such lenses are of great importance when making interiors where space is limited and the camera cannot be placed back far enough to include all that is wanted with the regular 50mm lens. It is likewise useful for street scenes. The average wide-angle lens has an angle of view of around 65 to 70 degrees, whereas the 50mm lens has an agle of about 48 degrees on the miniature negative of conventional size.

The speed lens offers, perhaps, more difficulty to the beginner than any other type, for, due to its speed, certain qualities must of a necessity be sacrificed. This the beginner does not know, and he therefore becomes dis-



Cross section view, showing construction of "Hektor" f:2.5 lens.

satisfied with his results when he uses the lens under adverse conditions.

A well-known physical law tells us that no machine can have both speed and power at the same time—one must be sacrificed for the other. A similar law is effective in optics, which states that a lens cannot have both speed and depth at the same time. The camera owner must realize this and work accordingly. At wide apertures, the fast lens has a very limited depth of field. However, as it is stopped down, depth is gained at a sacrifice of speed. Lenses of the speed class include those whose maximum aperture include f:2, f:1.9, f:1.8, f:1.5, and f:1.4. Lenses with speeds greater than f:2 are not recommended for all-purpose use on the camera except by those who know just how to use them to best advantage. These lenses are mighty nice to have as auxiliary lenses, to be used under conditions where the regular lens cannot produce the desired results.

Telephoto lenses play an important part in miniature photography, for they enable the enthusiast to obtain close-up scenes at a distance. At ball games, races, sports of all kinds in fact, in nature photography, etc., these lenses will be invaluable. Portraits are produced with these lenses with striking effect because of their better "roundness" and perspective. Here again, a telephoto lens should not be used on the camera as an all-purpose lens, but should be used where it is most effective.

These lenses range in focal length, for miniature use, from 70 to 150mm focus. In speed they rarely go beyond f:4.5, for if made faster, their weight and bulk would be excessive.

It should be noted that none of these lenses can take the place of the usual 50mm lens. No matter how many lenses the enthusiast may have, he should always own this particular lens. If only one lens is used, it should be this lens.

The lens must be sharply focused on miniature cameras, for when huge enlargements are subsequently made, errors in focusing become glaringly apparant, even if they do not reveal themselves in the negative or contact print. Don't trust too much to the hyperfocal distance; if the object to be photographed is fifteen feet away from the camera, set the lens for fifteen feet, and not ten, or twenty. Care in this matter will prevent disappointments. Some cameras, such as the Contax, Peggy, Prominent, and Leica, are equipped with automatic focusing devices which make absolutely certain that the lens is correctly set. For cameras not equipped with such devices, there are distance meters, also known as range finders. These devices are extremely useful for the amateur who experiences difficulty in judging distances accurately.

The big thing, however, is to use the lens or lenses intelligently. Know something about this wonderful device, and learn how much it is capable of doing when used intelligently. Those interested in knowing more about lenses are referred to "The Principles of Optics" by Hardy and Perrin, "How to Choose and Use a Lens" by Fraprie, and "Camera Lenses" by Arthur Lockett.

This Month's Formula

Gevaert soft-working tank formula
(GD206)

Metol	60 grains
Sodium sulphite	3½ ounces
Hydropuinone	30 grains
Borax	30 grains
Water to make	32 ounces

Dilute with 3 parts water.
Developing time: 30 minuts at 65° F.

The Question Box

Question: Where can I secure catalogs of enlargers suitable for miniature camera work?—J. R. W.

Answer: Write to Burleigh Brooks, 127 W. 42nd St., E. Leitz, Inc., 60 E. 10th St., Carl Zeiss, Inc., 485 Fifth Ave., and Willoughbys, Inc., 110 W. 32nd St., all in New York City.

Question: Where can I secure some information about the Mini-Fex and Peggy cameras?—T. L. P.

Answer: G. Gennert, Inc., 20 W. 22nd St., New York City.

Question: Is it possible to make photographic emulsions at home?—W. E. S.

Answer: Emulsion making is an exceedingly difficult and complicated process, and is not under any circumstances suggested. However, if you wish to know more about this work, I would suggest your reading "Photographic Emulsions" by E. J. Wall, Hon. F. R. P. S. (Obtainable through the Book Department of PERSONAL MOVIES magazine. Price $5.00)

Questions I note that some lenses are marked f:6.3, f:9, f:12.3, etc., whereas other lenses have f:8, f:11, etc. What is the difference, if any, between these figures?—D. K.

Answer: In continental Europe the former is used a good deal, whereas the latter is popular in the United States. Actually the difference between these figures is so light that they may be regarded as being the same; for example, f:8 on one lens and f:9 on another may be considered alike for all practical purposes.

Question: What filter is most useful for the greatest range of photography? In other words, if I am limited to one filter, which one would serve my purpose best?—A. G. V.

Answer: A yellow filter of medium density would undoubtedly be found most useful. In fact other filters are required only for special purposes.

Question: Can you suggest a good method for filing my miniature negatives in such a manner that I can easily refer to them?—F. F.

Answer: Various methods present themselves, but a most convenient one has recently been introduced by Willoughbys, Inc. It consists of boxes which are made to resemble books so that they may be placed on the bookshelf along with real books. Partitions are provided inside which accommodate prints or negatives. They also have interesting and clever little paper mounts for contact prints which require no trimming or masking of the tiny prints. Data can be written on the backs of the mounts. Contact prints mounted in this way are exceedingly neat and present a more than satisfactory appearance. Boxes containing rolls of negatives are also to be had. Many amateurs make their own file systems,

and because there is such a variety, it becomes impossible for us to list them here.

Question: What is the slowest shutter speed that should be attempted when the camera is held in the hands? —W. R. R.

Answer: While successful exposures have been made with one full second exposure while the camera was hand-held, it is not suggested to use a shutter speed slower than 1/25th of a second. There is always the danger of blur due to vibration of the camera, so to play safe, always use a firm tripod to support the camera when using slower speeds.

Window Shopping

This month we stop before this window over here—and examine the Zeiss Contax. The Contax is something of a new-comer, having been brought over here to America only last year, yet it has made a name for itself and is proving popular with a host of miniature enthusiasts. The Contax joins the ranks of that popular type of camera using cinema film which includes the Leica, Peggy, Memo, and Korelle-K. It produces up to 36 exposures per loading, each measuring 1 x 1½ inches. A metal focal plane shutter gives speeds from ½ to 1/1000

The Zeiss Contax Camera

of a second, and due to a mechanical arrangement, double-exposures are impossible—in other words, every picture can be made perfect without having to remember whether a fresh section of film was wound in front of the lens or not.

The Contax measures 1¾ x 2¾ x 5⅜ inches, and weighs 20 ounces. A long-base range-finder is coupled with the lens, this providing accurate and speedy focus. Standard cinema film may be used in the Contax loaded in any of the standard cartridges or spools or Contax metal magazines, and there is no need to wind the film back after the roll has been exposed—this is, of course, in the event that magazines are used at both ends and not only at one.

There is a complete battery of Zeiss lenses now available for the Contax, each built in the automatic lens-mounting which couples with the focusing range finder. Included in the battery of lenses are to be found speed, wide-angle, and telephoto types, all instantly interchangeable with each other on the camera.

Accessories for the Contax include leather cases, filters, developing and enlarging equipments, and copying devices.

Carl Zeiss, Inc., 485 Fifth Avenue, New York City will be pleased to send complete literature describing the Contax on request.

And over here in this window—to your left— are a number of lenses made by the famous Hugo Meyer factory. On closer examination we find that a number of these lenses are mounted in special bases which permit them to be used on the Leica

Kino-Plasmat f:1.5 lens for Leica and Contax Cameras

camera. A number of enthusiasts who have a "flare" for a number of lenses have included one or two of these Hugo Meyer lenses to "fill in the gaps" provided by the regular Leica lenses, and have found them exceptionally satisfactory.

The Hugo Meyer lenses screw into the camera the same as the regular Leica lenses, hence are interchangeable. Lenses are offered in extreme speed and telephoto models, besides the more usual focal lengths commonly used.

The Hugo Meyer Company, 245 W. 55th Street, New York City will be glad to explain further details regarding their lenses for use on Leica camreas.

E. Leitz, Inc., announces a new fifty millimeter lens, the Summar f:2, which possesses important characteristics. This lens, due to a revolutionary optical design, produces needlesharp crispness, even when used at its widest aperture. Because of this, it is not to be confused with so-called "speed lenses" which sacrifice sharpness and definition for the sake of speed. It may therefore be used as an "all-purpose" lens on the Leica, for when stopped down, its sharpness and depth remain normal as is customary with the more normal lenses.

The Summer f:2, 50mm lens is hailed as a new objective of rare qualities, and has already been accorded unusual popularity. Its value under unfavorable lighting conditions can be well imagined.

A new 135mm Hektor lens is announced with the Summar lens. This lens is identical to the Elmar lens of the same speed and focal length, but its lens design is quite different. It possesses a remarkable flatness of field and color correction, hence is a valuable lens for those who require these qualities.

Both the new Summar and Hektor lenses may be obtained in the regular or chromium mountings. The Summar comes in two styles, one a fixed or rigid mounting, the other in collapsible form like the other 50mm Leica objectives.

Further details about these lenses may be secured by writing to E. Leitz, Inc., 60 East 10th Street, New York.

In keeping with the policy of the Franke & Heidecke factory to keep abreast of the time in every posible manner with regard to their Rolleiflex Cameras, they now have available at the small extra cost of only 35 cents extra metal plugs or caps to fit over the red windows for the film numbers. These permit the use of the new Super Panchromatic film with the greatest ease and convenience and should prove a most welcome little accessory.

SUNNY SCHICK ANNOUNCES A NEW 16MM FILM LABORATORY

Sunny Schick, motion picture equipment broker and owner of the Atlas Film Company, announces the opening of their new DuPont Fil mLaboratories which will occupy new quarters in their newly constructed building at 401 W. Washington Blvd., Fort Wayne, Indiana.

The plant is of the latest type in construction and its capacity is the developing of 500 rolls of movie film per month. The plant is fully equipped to handle reversing process of film as well as duplicate printing and enlarging. Also the development of Leica and Contax strip film and the printing of same. Mr. Schick announces that it is one of the finest plants in the middle west and the only plant of its kind in the state of Indiana. All motion picture film sent into the plant will be developed and shipped out the same day, giving people in this section two day service. Mr. R. D. Kimmel, formerly of Des Moines, Iowa, well known as a film specialist is in charge of the Atlas Film Company plant as supervisor.

Miniature Camera Club
News and Notes

BOSTON

The second meeting of the season, October 16th Boston Architectural Club, 16 Somerset Street, near Boston City Club, at 5:30 p. m. At the conclusion of the meeting a large table was reserved at the Boston City Club for those who desired to eat together.

As announced in August, the meeting on October 16th was the first print competition of the season with enlargements in three classes as follows: (1) Marine; (2) Children; (3) Animals.

We were fortunate in having as one of the members of our Club Mr. Frank R. Fraprie, experienced photographer, editor of American Photography, and one whose services in judging of pictures are sought by organizations throughout the country. Mr. Fraprie consented to judge the prints submitted at the October 16th meeting.

While commenting upon composition, artistic merit, etc., Mr. Fraprie's prinicpal emphasis was in determining how well the photographer succeeded in doing what he evidently had in mind. In accordance with the decision at the September meeting, each picture will be rated A. B. C, or D, in accordance with Mr. Fraprie's judgment as to its relative merit, but in commenting upon each individual picture, Mr. Fraprie told what he thought could have been done to improve it.

After all, the one desire on the part of all of us is to make better pictures and these contests will provide an opportunity for expert criticism and should be an incentive to greater effort and it is therefore, hoped that all members will cooperate by submitting several prints at all future contests.

Each member is entitled to submit a total of five enlargements, not more than three of which may be in any one of the three classes. The enlargements must not be smaller than 6 x 9 inches and must be mounted on white mats, the mats not being larger than 16 x 20 inches.

CHICAGO

The Leica Club of Chicago held its regular monthly meeting October 3rd at the Stevens Hotel, at which time Karl A. Barleben, Jr., talked on miniature photography. A very splendid lecture was presented, illustrated with slides. A very fine exhibit of Leica photographs also illustrated some of the things shown in Mr. Barleben's lecture.

In spite of the fact that the American Legion had practically tied up all means of transportation, some 250 camera enthusiasts attended the meeting. The regular dinner prior to the meeting was enjoyed by about sixty persons—the largest attendance the Club has yet had. All enthusiastically took part in discussing photography.

The Leica Club is now arranging a collection of photographs through interchange with other miniature camera clubs. Any camera club desiring information regarding the same, please address Leica Club of Chicago, Stevens Hotel.

The next meeting of the Leica Club of Chicago will be held November 10, at the Stevens Hotel.

NEW YORK CITY

Vice President, Vernon E. Whitman called the meeting of the New York Miniature Camera Club to order on the evening of September 6th. Over 85 members and guests attended. Among the latter special mention should be made of Sigismund Blumann, F. R. P. S., former editor of Camera Craft, and Joseph M. Bing, F. R. P. S., an experienced bromoilist and photo dealer of New York.

The Executive Board appointed Messrs. Lester, Hand, Brooks, Pickett and Hallenberg, as nominating committee. The feature of the evening was the announced talk by Herbert C. McKay, Dean of the New York Institute of Photography.

The second meeting, held on the 20th, brought together over 90 members and guests. The nominating committee presented the following official ticket which was voted on at the October 18th meeting: President, Vernon E. Whitman; Vice President, Fenwick G. Small; Treasurer, G. M. Mowbray; Recording Secretary, Alexander L. Pugh; Corresponding Secretary, Wm. Taylor; Members of the Board, Miss Sophie Lauffer, F. R. P. S.; John L. Sena; Dr. R. A. Wetzel and Mrs. Margaret F. Curry. The latter will substitute William C. Rodgers, resigned.

The talk by Dan Myers on projection papers was most interesting and instructive, notwithstanding that the demonstration could not be held. The open forum after the talk was one of the liveliest held up to date.

SAN FRANCISCO

The Golden Gate Leica Camera Club held its regular monthly meeting Wednesday, September 21st, with more than 40 members present. After a short business meeting, the evening was turned over to Mr. L. M. Auer, from the firm of Spindler & Sauppe, Inc., who gave a thorough and interesting talk on the use of the Leica camera for copy work of all kinds. The necessary equipment was demonstrated and many pictures illustrated the results which can be obtained with same.

More than 36 prints were submitted by the members and the pictures selected during the two previous meetings adorned the wall and will be used later for exhibition purposes.

During the discussion many questions were asked and helpful suggestions were offered by members having experience in same. The Chairman, Mr. Gwynn, stated that all members showed more enthusiasm than on any previous meeting.

Those interested to join please address Mr. Wm. L. Shattuck, 430 Main Street, San Francisco.

(*Continued from page 268*)

"THREE LITTLE PIGS"

A Walt Disney colored Silly Symphony

That estimable and ubiquitous aetor, Miekey Mouse, is the ostensible produeer of the "Three Little Pigs" and is responsible for the "Who's afraid of the big bad wolf, big bad wolf, big bad wolf" mania sweeping from the Atlantic to the Pacific and from Maine to California. Not since the "Skeleton Danee" has a Silly Symphony elieted sueh high and unstinted praise. The theme song is on everyone's tongue and pops at you the minute you turn on the radio. Even if one were to flee to the South Seas in an effort to escape it one would probably find the natives singing it as they prepared their legendary meals of "Long Pig."

The coloring of the pieture is the finest imaginable and plaees the animated eartoon on a new and higher plane than it has ever oeeupied before. For sheer fantasy there is no form of cinematies whieh ean hold a candle to the animated eartoon. It is undoubtedly the real "art" medium of the motion picture. Anything and everything can be done and is done, from making a eharacter appear from nowhere and change into any form he desires to making the very flowers and trees sing and danee.

These short featurettes, far from being mere program fillers, are worthy of being billed by themselves and in many theatres the "Three Little Pigs" has played several return engagements. There is no doubt that this pieturization of the nursery rhyme is more entertaining than many a feature pieture. Unfortunately it is too short, far too short. And yet, its very shortness is probably the characteristie whieh keeps the animated eartoon a perenial favorite with both young and old. With the last fade-out one is always conscious of the fact that one has had noe quite enough; and that, as all showmen will tell you, is the way to leave an audience, always wit hthe taste for more in their mouth.

Considerable confusion has been eaused by the fact that the new Panatomic Roll Film, just introduced by the Eastman Kodak Company, is put out in the No. 117, or 2¼ x 2¼ inch size, and advertised accordingly for the Rolleiflex Camera. The late model of the Rolleiflex Camera is made primarily to take the 2¼ x 3¼ inch Panatomie Film, but it also takes the No. 117, or 2¼ x 2¼ ineh Panatomie Film.

Helpful Hints for the Amateur

by M. Luther Keagy

To Avoid Developing Fog in Prints

Keep a bottle of saturated solution of Potassium Bromide near at hand and if prints show a dull fog add a few drops at a time until the trouble is corrected.

Developer to be Used in Photographing against Strong Lights

Here is a developer that has been found to be extremely useful in developing films or plates which have been exposed against strong lights—such as daylight interiors where exposure is made against window lights, etc. It is claimed that this developer "snaps up" the shadows considerably.

Water	120 ounces
Metol	25 grains
Sulphite	1 ounce
Hydroquinone	120 grains

Develop for a total of about 30 minutes at 65 degrees. After development has been carried out for about 25 minutes add about 40 to 50 grains of carbonate of soda, and then complete the development. This is to prevent the film from becoming too flat. I would suggest that panchromatic film be used for best results.

Enlarging From Wet Negatives

On special rush orders it sometimes becomes necessary to make enlargements from films before they have time to dry. Do not attempt this with out first hardening the emulsion.

To harden, place film in a bath for about 5 to 10 minutes in the following solution:

Formalin	1 pint
Water	10 parts

After hardening in the bath above, remove surplus solution, place carefully between folds of a linen towel. The negative is then ready for enlarging. The above procedure is only recommended in extreme cases where it is necessary to turn out work in the quickest possible time.

Photographing Stained Glass Windows

To get the best results in photographing stained glass windows or such articles that have a great variety of color it is advisable to use a K-2 filter with panchromatic film.

Removing Pyro Stain From Films

To remove excessive pyro stains from film use the following solution:

Water	10 ounces
Powdered Alum	1 ounce
Sulphuric Acid	½ dram

Put the negative into solution and soak for a few minutes. Then take a tuft of absorbent cotton and lightly sponge the surface of the film until the stain is entirely removed. Then wash negative in the usual manner and dry.

To Print From a Wet Negative

To obtain a contact print quickly from a wet negative—as is necessary sometimes in extreme cases—place the negative upon a thin clear piece of glass which is slightly larger than the negative. Then place a clear piece of celluloid over it and squeegee the surplus water out carefully with a print roller. This leaves the celluloid dry so the paper may be placed directly in contact with it. Expose either with printing frame or printing box. After the print has been made lift celuloid off carefully and place negative in wash until it is free from all chemicals.

A Quick Process for Intensifying

If you have an underexposed negative and you must have a print from it quickly before it has been washed free from all traces of hypo—the following process will do the trick nicely:

Solution "A"

Mercuric Chloride	175 grains
Water	10 ounces

Solution "B"

Potassium Iodide	1 ounce
Water	10 ounces

Pour 8 ounces of solution "B" into solution "A" stirring well. By doing this you will precipitate the Red Mercuric Iodide. Then pour a small amount of the balance of solution "B" until it clears. It is then ready for use.

Rinse the negative you have just taken from the fixing bath and put it into the solution. Intense reaction begins at once. Hypo remaining on the negative will not affect action of the intensifier or cause stains.

Removing Surface Fog From Prints

By forcing prints in development—especially if developer is stale prints often have a surface fog. They may be removed by carefully sponging the surface of prints with a tuft of absorbent cotton which has been dipped in alcohol.

Removing Stains From the Hands

While in the process of mixing hypo-alum toning bath the hands often get badly stained. These stains may be removed by applying the following solution:

Chloride of Lime	1 ounce
Sulphate of Soda	1¾ ounces
Water	4 ounces

Removing Iron Spots From Prints

Immerse the print in the following solution for a few minutes, being careful not to leave too long as it acts as a reducer:

Water	10 ounces
Powdered Alum	1 ounce
Sulphuric Acid (C. P.	½ dram

Movie Club Flashes

The fast bit of action pictured herewith is taken from a scene of the fourth production of the Greenbrier Amateur Movie Club entitled *The Prodigal Wife*. This polo match between two well known teams add much color and excitement to this new film story. Among members of the cast are Dorothy Wyatt, Robert Waller, Hal Morey, Lon Chassey and Carl Ostlin.

The second meeting of the Pittsburgh Amateur Movie Club was held on the evening of October 17th with an enthusiastic attendance of sixty-five. This meeting was given over to a talk and demonstration on interior lighting for motion picture photography. The next meeting will be held on November 21, at which time a very interesting talk on Lenses will be given by Dr. H. O. Blackwood of the Physics Department of the University of Pittsburgh. This talk will be illustrated by models and slides. In addition a two reel picture on the eyes of science, showing the making of lenses at the Bausch & Lomb factory, will be shown. Quite a large turn-out is expected for this meeting. During the first month of the club's organization there is a paid up membership of 56, which is expected to increase to 200 before the first of the year. Membership fees being only $1.00, and ten meeting per year are held—no meetings being held during the months of July and August.

New Stewart-Warner Camera

"Buddy 8" with f:2.7 Lens

Designed for the more particular amateur movie enthusiast who requires a lens with more speed in order to gain special results a Velostigmat f:2.7 is provided which has more than ample speed for all practical purposes. This new 8mm camera has three speeds . . . normal, low and s-l-o-w motion. Two view finders are provided. A direct vision view finder which shows the picture just as it will appear on the film and an auxiliary view finder which is provided for the centering of difficult or distant shots. Other features include a visual mechanical footage indicator, exposure chart, silent winding key which folds flat against the camera when not in use, interchangeability of lens equipment, tripod sockets and camera strap handle. This very compact little camera weighs only 1 lb., 10 oz., and a De Luxe carrying case may be also provided at slight extra charge. Full details may be obtained by writing Stewart-Warner Corp., Chicago, Ill.

A NEW CINE-KODAK EIGHT

A Model 25

Fitted with an f:2.8 Lens

$44.50

A NEW member of the "Eight" family. The Model 25, with an f:2.7 Kodak Anastigmat lens, offers unusual lens speed at the remarkably low price of only $44.50.

Its fast lens means better "shots" on dark days, in the late afternoon or early morning, and indoors with the aid of artificial illumination. Highly satisfactory indoor results can be obtained using but two 35 cent Photoflood lamps in Kodaflector, Eastman's new efficient home lighting unit.

The Camera Shop

531 Market North
CANTON, OHIO

GREETINGS!

TO OUR MANY FRIENDS AND CUSTOMERS:

We have just completed the removal of our office from Atlanta, Georgia to Los Angeles, where we are in a much better position to serve you.

Our various price and bargain bulletins will be mailed from time to time to those whose names are on our mailing list. If your name is not on our list we will be pleased to hear from you.

WE BUY —
SELL —
AND EXCHANGE —
MOVIE CAMERAS — PROJECTORS
FILMS — ACCESSORIES — ETC.
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We will buy your used equipment for cash, or give you a liberal allowance for it on new equipment, or other goods selected from our lists. Most any useful and saleable article accepted in trade.

Films exchanged from 25c each and up. A large list of the latest releases to select from.

Send a 3c stamp for our lists of bargains and films for exchange. (Actual art samples 25c. Refundable). Please state what you have to sell or exchange, and what you are interested in. Our best offer will be made by return mail.

Peerless Trading Company

Dept. P. M. 5 Post Office Drawer Y

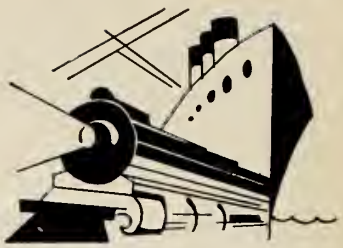
South Gate, California

(A Suburb of Los Angeles)

Classified Advertising

3 CENTS A WORD

Advertisements in this section 3 cents per word, each insertion, payable in advance. To be inserted under proper classification in the Dec. issue, copy should reach us not later than Nov. 15th. Count address, initials and numbers as words. All ads set in uniform style as below. PERSONAL MOVIES, Sippo Lake, Canton, Ohio.



FOR SALE

16MM BARGAINS—400 FT. ALUMINUM reels 38c; humidors 45c; cement 20c. B & H. (used) 70A Camera f:3.5, $60.00 with case. B & H 57G Projector with case $88. Library film 2c per foot, Positive and Negative film. Free, our new 55 page catalog and membership to silent and sound library.—MOGULL BROS, 1944-A Boston Road, N. Y. C.

BARGAINS FROM OUR TRADE-IN DEPARTMENT—10 x 15cm. Voigtlander Camera Compur shutter, f:4.5 Heliar lens, case, holders (tourists model) $47.50 (almost new). Model C. Kodascope, late model, case, excellent condition $22.50. DeVry 16 mm Projector, good conditions $19.50. B & H Projector, oval base, 200 watt, case, extra lamp (excellent condition) $75.00. 4 x 5 Graflex f:4.5, splendid condition $42.50. 1 DeVry 35mm portable Movie Camera $27.50 —THE CAMERA SHOP, 531 Market N., Canton, Ohio.

KODACOLOR UNITS: for Filmo $10.00. Kodascope A or B $7.50. Photometer $7.50. Photoflood twin reflector and stand $3.00. Leica Enlarger with lens, $35.00. Leica D, f:2.5, $85.00. Equipment bought, sold and exchanged. Send stamp for list. — THE CAMERA EXCHANGE, Box 245 Tewksbury, Mass.

BRAND NEW 16MM STEWART-WARNER $49.50 Movie Cameras for $24.75 on easy terms. Also regular $87.50 Victor Cameras for $49.50. Only one-half down and balance in small monthly payments. Cash prices and other movie bargains on request.—D. F. ELDER & COMPANY, Dept. 502, Chelsea, Mass.

YOUR ADVERTISEMENT HERE WILL only cost Three Cents a word. If you have movie or photographic equipment to sell, a small ad like this will find you a buyer. Count each word and name and address. PERSONAL MOVIES, Sippo Lake, Canton, Ohio.

F I L M

NEW PRINTS — FRANK McGLYN IN — "Abraham Lincoln" and Colleen Moore in "Little Orphant Annie."—F. C. PICTURES CORPORATION, 265 Franklin St. Buffalo.

BARGAINS — 16MM EDUCATIONAL, Teaching Films, 400 feet $2.50; 100 feet $1.00; no lists—will send the best. 400 feet comedies, cartoons, $5.00; 100 feet art films $2.50. Projectors. Lists free—CINE FILMS, Box 2I33, Patterson, N. J.

FREE, UPON REQUEST — 20-PAGE Booklets, containing lists of over 500 subjects available on 16mm films, including Passion Play, scenics, comedies, etc. (new prints). Write for your copy now. Theatrical equipment: machines, 35mm films, scenery, chairs, etc. Let us know your wants.—PECKER FILM SERVICE, 31 Church St., Boston, Mass.

"SANTA'S WORK SHOP" — 100 FOOT $4.00. "'Twas the Night Before Christmas" 2 reels $20.00. New Prints. Get your Christmas subject early for the holiday showing before the supply is exhausted. Write for list of subjects for sale.—H. B. KAY, 145 Jerome Street, Brooklyn, N. Y.

LARGE STOCK OF 16MM LIBRARY Films of selected subjects of quality, in fine condition for sale at 20 per cent to 75 per cent discount from the Maker's lists. Also exchange films for desirable subjects of quality.—J. B. HADAWAY, Swampscott, Mass.

"THE WORLD'S GREATEST PASSION PLAY" depicting entire story of the Life of Christ. This crowning achievement is more elaborate than the Oberammergau stage play. Complete story 5 reels. (New) 16 mm. Religious soul-stirring! Rent or purchase, and others. Write—HEMENWAY, FILM CO., 37 Church St., Boston, Massachusetts.

400 FOOT REELS LIBRARY SUBJECTS in good condition which will make a valuable addition to your home movie library. Your choice $12.00 per 400 ft. reel. THE CAMERA SHOP, 531 Market N. Canton, O.

ARE YOU TIRED OF YOUR FILMS?—Do you want to sell them or trade for new ones? Your advertisement under this heading will only cost three cents a word. Send that classified advertisement today. PERSONAL MOVIES, Sippo Lake, Canton, O.

SWAP OR EXCHANGE

TARGET PISTOLS, SHOTGUNS, RIFLES and other good firearms accepted in trade toward any photographic equipment, motion picture or "still." We are authorized Eastman, Bell & Howell, Stewart Warner, Victor, Leitz, Graflex, and Zeiss dealers. NATIONAL CAMERA EXCHANGE, 5 South Fifth Street, Minneapolis, Minn.

EXCHANGE YOUR USED OR OLD CAMeras, Projectors, Films, etc., for new or other used equipment. We buy, sell and exchange all kinds of movie equipment. Send a stamp for my big exchange list. State what you have and want.—PEERLESS TRADING CO., P. O. Drawer "Y", South Gate, California.

WANTED

WANTED MEMOSCOPE OR OTHER Projector for single frame 35mm strip film. Will pay cash or trade movie equipment. State condition and lowest cash price.—PHOTO TRADE MART, Box 524, Canton, Ohio.

WE PAY CASH FOR YOUR GRAFLEX or used movie equipment. Send description for best price. CAMERA SHOP, 531 Market N., Canton, Ohio.

WE PAY CASH FOR USED PRINTS 16 mm in good condition.—F. C. PICTURES CORPORATION, 265 Franklin St., Buffalo.

INSTRUCTION

LEARN THE MOTION PICTURE THEATRE Business. Approved home-study training. Send for free catalog. — THEATRE MANAGERS INSTITUTE, 325 Washington Street, Elmira, New York.

THE NEW LEICA DATA BOOK, by Karl A. Barleben, Jr., contains scores of valuable tables and many formulas for use in developing miniature camera films, printing, enlarging, microscopic photography, etc. A handy pocket volume which you will want as a constant companion. Price 50c per copy, postpaid.—FOMO PUBLISHING COMPANY, Sippo Lake, Canton, Ohio.

MISCELLANEOUS

EDISON! FINEST BLUE BLADE MADE, for Gillette razors, old and new. Guaranteed. 10 blades 25c postpaid. Agents wanted.—MOORE SALES SERVICE, 217 Duncan Street, Raleigh, N. C.

FUN CARDS — GREAT SELLER. SAMple set, agents price, 10c; 3 sets, all different, 25c. —MILLER, 6 Willow Avenue, Ambler, Pa.

PILOT ENGRAVING POWDER. WHEN mixed with water, will engrave names, dates, designs on anything that you wish on tools, guns, dog collars, badges, name plates, golf clubs, automobiles, etc. Simple to apply and use, only mix with 1 oz. of water, then use wire hair pin. Price, 25c (coin) per pkg. PILOT SPECIALTIES, 903 Camp St., New Orleans, La.

500 PER CENT PROFIT — CONTROL 80 per cent Aspirin sales in your community. Sell nothing. Merchants gladly cooperate. Details, working samples we use, only 25c. —NATIONAL SALES, Parnassus, Pa.

THE OZARKIAN — A MONTHLY MAGazine devoted to the nation's great central playground—the Ozarks. Folklore, Legends, Information for Tourists and Homeseekers. Subscription rate $1.00 per year. Single copy 15c. No free samples. Adv. rate $1.00 per inch each insertion. Order from THE OZARKIAN, 312½ E. Commercial Street, Springfield, Mo.

FINISHING AND ENLARGING

LEICA AND MEMO POSITIVE FILM hand colored at 2c per frame. Lantern slides also hand colored at reasonable prices. Snapshots hand colored at 5c each. Enlargements hand colored at 25c each.—EVELYN HARRIS, Shreve, Ohio.

DEVELOPING AND ENLARGING FOR Miniature Camera users. Any miniature film roll developed for 30c. Enlargements from 10c upwards according to size. Fine grain developing and individual care assures best results. See my large advertisement this issue.—WALTZ, The Camera Man, Canton, Ohio.

MENTION PERSONAL MOVIES WHEN YOU ANSWER AN ADVERTISEMENT.

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